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INDUSTRIAL HOUSING IN INDIA

INDUSTRIAL HOUSING IN INDIA

By

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WITH A FOREWORD

By

The Hon'ble Shri Jagjivan Ram,
(Minister for Communications)

Author of:—

1. The B. A. Calculus, 1926.
2. The Salt Industry in India (Govt. of India publication, 1937)
3. Report on Visits to Mines & Factories in European Countries, ~~1938~~
4. The History of the Supply Department 1939-46 (Govt. of India Publication, 1947)
5. The Sambhar Lake Salt Source (Govt. of India Publication, 1951)

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FOREWORD

Of all the economic problems the country is faced with, Housing is next in importance only to that of food. Even before the war, the problem of housing was acute. The *laissez faire* policy which was prevalent with regard to location of industry led to the haphazard growth of towns and industrial centres, and the rapid increase of industrial population enhanced the pressure on the none-too-adequate housing accommodation in these areas.

The war aggravated the already serious housing situation. There was virtual cessation of building activity during the war period, since essential building materials, such as cement, steel, timber, etc., were diverted towards the war effort.

Besides, a large number of people moved to urban areas and added to the housing problem. Since the Partition in 1947, the influx of millions of displaced persons from Pakistan has further intensified the housing problem especially in urban areas.

The improvement of housing conditions in our industrial cities is thus a very pressing problem. It is now realised that the future of our industrial development is wound up with the question of improving the living and hygienic conditions in our industrial centres. The Government of India some years ago decided to construct a million houses for the workers over a period of ten years. Not much headway was made though various schemes have been under consideration from time to time. The Subsidised Housing Scheme is, however, a great step forward. Industrialism is advancing rapidly in the country; its progress is measured by wages and profits, but the vast human scrap-heap, which it scatters wildly strikes few people. There are angry hisses and red sparks of revolt as is clear from strikes and lock-outs. Our problem thus is to save industrialism and adjust it somehow to an ancient people's nature. One way of adjustment consists in giving a decent home to the worker, so that he need not seek unwholesome pleasures away from home, nor do his children spend most of their time near drains and dust-bins. Regionalisation of industries and their location in rural areas where plentiful land may be available is more than desirable. Housing condition in rural areas too, is far from satisfactory. Though the problem there has not as yet attracted the same attention as that in urban areas and industrial centres, it is assuming proportions which will have to be solved sooner than later. A systematic study of the problem of shelter—both urban and rural—is the need of the time. The publication of

Mr. Aggarwal's book, therefore, is most opportune at this moment.

The book is very comprehensive and is the first of its kind on the question of housing. The author has taken great pains to collect important statistical and detailed information on the subject from all available sources. Practically nothing has been left. General problems in connection with housing and the conditions of housing in each industry have been chronicled in detail. A historical review has also been made of the action taken by the Government of India and the State Governments from time to time and of the various Committees and Commissions set up as also the present position. In short, the book is a complete survey of the housing problem in the country. Its value has been enhanced by the inclusion of details of what has been done in important foreign countries in this matter and how this complicated problem has been and is being tackled there.

I have known the author for several years when he was Deputy Secretary in the Labour Ministry. He has already proved himself to be an author of note by having written several other standard books on the Salt Industry and on the Supply Department, etc., which have been published by the Government of India. I have no hesitation in saying that the author has made a notable contribution to the solution of an important problem. The book deserves study by officials and non-officials, businessmen, economists, trade unionists and publicmen as it fulfils a very long-felt want. I am sure it will prove of immense value to all concerned.

New Delhi, JAGJIVAN RAM.
20*th December,* 1952.

PREFACE

The subject of Industrial Housing has an imperative human appeal; it vitally concerns not only our economic but also our social future. The efficiency of the labour force of a country ultimately governs its economic status in the world. In India there is a cheap supply of labour, both for the fields and the factories. In agriculture, farming is not conducted on scientific lines, and hence labour is cheap relatively to capital and machinery. In fact, the introduction of scientific methods and investment of capital in agriculture are retarded by the abundant supply of agricultural labour. In the manufacturing industry, however, the shibboleth of cheap labour can no longer apply, for, as a matter of fact, Indian mill labour in relation to quality and quantity of production is not cheap. Labour is dear in relation to the capital and the machinery which it handles.

Industrialism is advancing rapidly in the country. Its progress is apt to be measured in terms of wages and profits, but the vast human material which it so ruthlessly affects scarcely commands attention. Deep in the background of these slums, the flames are spreading. We need no labour leaders or Bolshevik teaching from outside to fan these flames into a rebellious conflagration. The need for providing decent homes to the workers and their families is most urgent otherwise the conflagration may spread and where there are slowly rumbling forces underground there may be violent upheavals involving needless destruction.

It is gratifying to note that during the last 4-5 years much emphasis has been laid on the question of housing for industrial workers. In fact, next to food, housing of labour is the crying problem. The need for introduction and expanding labour welfare work in all over the industry has been recognised ; more so, as much emphasis is being laid on increasing production in all industries.

Government also appealed to labour for Industrial Truce some years ago. The Industries Conference (December 1947) recognised proper housing to be most essential if production was to be increased. The Resolution said, "That, as a first step towards improving the standard of living of workers immediate attention should be devoted to the problem of housing of industrial labour; the cost of such housing should be shared in suitable proportions between the Government, employers and labour, the share of labour being given in the shape of a reasonable rent."

The statement of Industrial Policy that followed in April, 1948, also mentioned about housing for the workers:—

> "The Government of India are also taking special steps to improve industrial housing as quickly as possible. A scheme for the construction of one million workers' houses in ten years is under contemplation, and a Housing Board is being constituted for this purpose."

Industrial Housing has been a burning question especially since this announcement was made. This question has been discussed at Governors' Conference, also with Planning Commission. The Hon'ble Prime Minister drew pointed attention to this question after visiting slums in Kanpur in February, 1952. The Government of India have recognised its importance and have created a new Ministry—Ministry of Works, Housing and Supply which will co-ordinate the work and deal with all aspects of Housing (a subject which was so far being dealt with by several Ministries, such as Labour, Rehabilitation, Health, etc.)

This subject, however, has received scanty attention at the hands of authors in India. In this work I have attempted to give the reader everything on the subject in the form of a handy volume. The origin and importance of this problem, abstract considerations, sociological issues, effects of bad housing, position of housing, State-wise and industry-wise, Housing Policy, Finance for housing, Housing Legislation, work done by Improvement Trusts, Municipalities, etc., position in important foreign countries, etc., have all been dealt with.

A historical and chronological review has been given of the steps taken by the various State Governments and the Central Government during recent years—culminating in the Planning Commission's scheme in their Five Year Plan, passing of legislation in some States, Government of India's Subsidised Housing Scheme, etc.

Owing to scarcity of building materials, much attention has been focussed on cheap housing for which materials like iron and steel, cement, etc., are not required. Chapters have been devoted to this aspect as well as to Prefabrication.

I have freely availed myself of the printed literature on the subject. For the factual data, I have drawn upon the various statistical publications of the Government of India and upon the reports of various Commissions and Committees appointed by the Central Government and by some State Governments from time to time, such as Labour Investigation Committees, Bombay, Kanpur and Bihar Labour Committees, Bombay Textile Enquiry Committee, Rent

Enquiry Committee, Madras Provincial Housing Committee, Bhore Committee, Environmental Hygiene Committee, etc. Considerable help has been taken from the reports of the Labour Investigation Committee on various industries. Latest reports and plans of the State Governments, the Central Government, the Planning Commission, in regard to housing have also been incorporated. Foreign books, especially I.L.O. and U.N.O. books, books on housing in the U.K. and U.S.A. were of much help. A list of these has been given under 'Bibliography'.

I am grateful to the Hon'ble Shri Jagjivan Ram, lately Minister for Labour, who encouraged me in writing this book and has kindly added a foreword. My thanks are also due to some officers of the State Governments, such as Shri P. K. Sen, Shri R. Sahaya, Dr. Bool Chand, Shri B. Jogappa, Shri Rameshwar Lal, Shri D. S. P. Mukerjee and Shri K. R. Das Sarkar, who kindly went over the portions relating to their States and made valuable suggestions. I am also indebted to Messrs. A. B. Bhattacharya, Satya Pal Singh and V. P. Chopra for the valuable assistance given by them in collection of material, short-hand and typing work and in checking of proofs. Mr. Satya Pal Singh deserves special thanks as he took great pains particularly in checking of proofs, etc.

While I have collected most of my data from old records, files, brochures, reports, etc., any views contained in the book are my own as an individual observer and should not be treated as those of Government.

New Delhi :

Dated the 20*th December*, 1952. S. C. AGGARWAL.

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PART I

GENERAL CONSIDERATIONS

CHAPTER I

THE OLD ECONOMIC ORGANISATION—THE VILLAGE

India, at the present time, is in a state of economic transition and exhibits, in varying degrees, characteristics pertaining to both types of countries, old and modern. She may be said to be marching in uneven stages through the centuries ; for while some parts are, economically speaking, medieval, if not primitive, others have definitely entered the modern stadium and display that full development of economic conditions found in the most advanced countries of Western Europe. The trend of development, however, is towards a growing predominance of the second type described above.

In order to understand the nature of the change that has been wrought in India it is necessary to describe in some detail the old economic organisation as it existed before the new forces were let loose upon it.

The first important feature of the old economic order in India is the division of the country into villages where the large majority of the people lived and continue to live today. The isolated and self sufficient village was the unit of the old Indian economy, and ' it is to the village that we must go to study the conditions in which men live and work who are still under the old dispensation'.

How the village arose and why it persists

Various hypotheses have been suggested in explanation of the particular mode of settlement known as the village. The difficult task of clearing the jungle for cultivation may have compelled what was originally a nomadic tribe or clan to stick to one spot for purposes of effective co-operation. A second influential factor may have been the supply of water. If water was not freely available everywhere within a given area, those parts where it was abundant would naturally be chosen for concentration. Another factor cementing this concentration must have been the need for securing protection from hostile tribes and the wild beasts of the jungle. The Indian village community is by no means without parallel in other parts of the world—the medieval manor in England, the German mark and the Russian mira are obvious parallels — but the enduring quality of the village organisation in India and its persistence in the face of numerous political vicissitudes have often been noted as peculiarly Indian characteristics, especially by foreign observers, and glowing descriptions have been given of the Arcadian simplicity and happiness supposed to have ruled supreme in the old Indian village communities.

The idea, however, that the village was able to live its own life entirely unaffected by wars and revolutions outside must be accepted with much reservation and qualification. When, as for example, after the break-up of the Mogul Empire during the eighteenth century the whole country was a theatre of constant warfare, it is unthinkable that the villages should have been allowed to pursue the even tenor of their life entirely undisturbed. As a general rule they were forced to rely on themselves for defence against aggression. Occasionally, they succeeded in warding off the attacks, but often the enemy was too powerful, and successful resistance was impossible. Rapine and plunder, exaction and extortion must have rudely disturbed their economy from time to time, and recovery must often have been a slow and painful process. The fact that village organisation remained practically unaltered for centuries must be attributed rather to certain persistent factors, such as lack of communications and the consequent absence of an effectively centralised system of administration, than to any inherent virtue in the Indian village making for its survival.

The typical Indian villages

The typical Indian village is an aggregate of cultivated holdings with or without some waste area attached to it, and usually it has a central site where the dwelling houses are congregated together, with the lands of the village spreading round about the central site in a series of concentric circles. In some cases small homesteads and farm buildings are found separately located on the holdings, though for better security and other reasons it is usual for the cultivator to stay in his house in the village dwelling area. The villages often boast of a grove and some kind of public office where the village officers keep their books and dispose of their business.

Village Organisation

Turning to the village organisation, we attempt here only a generalised description indicating the features common to Indian villages. Each village is an entirely self-sufficient economic unit containing within its bounds all the labour, capital and skill necessary for its agricultural and industrial activities. The inhabitants of the village may be divided into three groups:—(*i*) the agriculturist, (*ii*) the village officers, and (*iii*) the village artisans and menials. The agriculturists themselves may be divided into the land owning and the tenants classes (though the former are vanishing as a class owing to the changed economic and political set up and as a result of various and Reforms being undertaken — Zamindari Abolition, etc.), consisting together the most important section of the village community. The actual cultivators, whether proprietors or tenants cultivate mostly small open fields (reminiscent of the common fields without enclosures of the English village before the agricultural revolution) with such labour and only occasionally with hired labour. They provided the small capital that they need from their own savings or from the village landlord, or more commonly the village money lenders. They undertake the risk of cultivation, are themselves the managers, organisers and experts of their petty farms.

In the next chapter we shall show how there has been an exodus to urban areas and how towns have sprung up. The Indian village, however, still retains its character and persists .

CHAPTER II

GROWTH OF CITIES AND TOWNS IN INDIA

The housing problem is a result of the growth of towns in the country. Hence it is important to see the causes that led to the growth of big cities and small towns.

The development of the big city

In early times sudden climatic changes led to the movements of hordes and tribes. Indiscriminate grazing led to the sterlisation of pasture lands which kept the shepherds on the march for " fresh fields and pastures anew". People, however, gradually settled in fertile river valleys and grassy places and developed a stable social life. The specialization of industrial and social functions also led to a constant shifting of men with the result that the people collected in selected cities which afforded some special advantages. In the beginning, when peace and security were uncertain, population was diverted towards the seats of kings or the headquarters of local chiefs which were comparatively secure. Gradually as agriculture and industry flourished, men gathered on sites where the hills meet, the valley or on the junction of roads and rivers where traders may carry on a brisk business. Thus marts developed into towns. In India, towns also developed out of weekly markets or periodical fairs. Cities grow by commerce, by arts, handicrafts, and by religion. Some places developed as capitals of former ruling dynasties and owed their importance to their position as political centres ; others, situated on the great land or waterways, grew up as emporia of trade ; others again were established as strategic citadels of defence against hostile raiders. The prosperity of many has varied with the history of the tract in which they are situated, with the changes in administrative organisation, the diversion of trade-routes, the growth or decay of harbours, the introduction of railways and the development of communications. We find commercial centres at the confluence of rivers, heads of navigation fords, meeting points of hill and plain, and other places where the physical configuration requires a change of vehicle. Such centres generally grow from their position as were post offices for the distribution of goods and thus become the headquarters of a large and growing enterpot trade and the seats of an intricate system of commerce and exchange. Again, the fact that a large number of people are brought together at any point for any purpose at once becomes a cause for yet other people to come. Accordingly, there has been an unmistakable tendency for the population to concentrate more and more in select places, in order to profit by the various advantages in trade, commerce and profitable employment which they offered.

The Industrial Revolution

More than all these, however, have industry and trade contributed to the concentration of population in cities and big towns. The social and economic changes which followed the Industrial Revolution completely destroyed and disorganised the existing methods of production and distribution in England and Central and Western Europe. The manorial and feudal organisations had lost their strength and significance with the emergence of the powerful and well-disciplined craft and merchant guilds, which successfully regulated production, distribution and the conditions of labour in more of the towns in Europe during the Middle Ages.

Thus the new discoveries and inventions necessitated, and the railways and steamships facilitated, the concentration of labour and capital in industrial centres. Proximity to coal and iron mines became an important condition of the fitness of a place for industrial growth. Accordingly, a number of towns having coal or iron mines or raw materials grew up rapidly, and attracted towards them large numbers of people for lucrative employment and for purposes of trade and commerce. So rapid was the flow of population towards the urban areas, that, whereas in 1851 only half of the population of England and Wales lived in urban areas, now no less than four-fifths do so. The problem of housing this ever-increasing population assumed a very acute form in most of the industrial towns, which developed 'slums, with back-to-back houses, or surrounding little, sunless, unpaved courts and narrow alleys of damp and dreary dwellings.'

Conditions in India

Here in India we find the same forces of industrialisation and urbanisation being repeated to-day. In fact, India is at present in the throes of an industrial revolution. Her geographical seclusion, her fertile soil which yields abundance of food with comparatively little toil, as also her enervating climate which encourages ease and luxury, had all combined to postpone the evil day, but the forces of industrial concentration have now proved too strong. The small cottage and home industries are languishing, and the decay of supplementary occupations has weakened the position of the small farmer. The agriculturist works on meagre resources, and these are not equitably distributed. Thus there arises a class of landless proletariat. The continued subdivision and fragmentation of holdings has resulted in severe congestion in agriculture. Besides, the growth of population has given rise to a class of landless labourers, who are beginning to find agricultural labour altogether unpaying. Moreover, the increasing use of agricultural machinery, besides improving the crop, is gradually setting free a number of workers for industrial work. Ordinary agriculture is thus becoming rather unprofitable. Both the tenant and the agricultural labourer are feeling the pinch and migrating to the towns. The joint family system renders such migration both profitable and easy to a tenant, because the land is incapable of supporting the growing family. By migrating to the town, he not only lightens the burden on the land, but is not infrequently able to send home monetary help for minor improvements in agriculture. The agricultural labourer, similarly, feels that he can get more remunerative employment in the city, and improve his social status when he returns to the land. Thus we find in operation a regular rural exodus to the city.

A new class of capitalists is springing up in the country, who can command a large industrial capital but who refuse to move from the industrial centres, where they find a large labour market and all the facilities of trade, banking and social life impossible to obtain in remote districts, where raw materials might have been cheaper.

Summarising we find the following:

Modern forces influencing the growth of towns

(*i*) Railways and navigation have brought into existence new commercial centres and have increased the importance of some of the old ones. In fact, one of the earliest results of British rule was the growth of the great mercantile centres. The British have thus played a role of town-builders in India. Bombay, Madras, Calcutta, Delhi, Hubli and Bangalore serve as illustrations of the new commercial towns.

(*ii*) The growth of new industries in the West has meant the crowding of vast masses of population into mammoth towns and cities, a phenomenon not without its counterpart in India. The leading industries of the country have contributed to the conversion of villages into towns and towns into cities. Bombay, Ahmedabad, Sholapur and Hubli with their cotton mills, and Kanpur with its woollen mills and leather factories are all creations of the new industrial era and owe their size and a substantial part of their importance to their staple industries. The rapid development of Jamshedpur since 1911, as a result of the expansion of the Tata Iron and Steel enterprise, is one of the romances of industrial achievement in India.

(*iii*) The rise of a class of landless labourers in the villages is the result of famines and the dis-possession of the old peasant proprietors, and the transformation of the artisans into wage-earners.

The existence of this class promotes urbanisation to some extent, for the landless labourer is often ready to migrate to the towns if he can find employment there.

(*iv*) Famines are among the causes which deplete the countryside and increase the volume of the urban population. It may happen that part of this addition is permanently absorbed by the occupations in towns.

(*v*) The attractions of urban life have led wealthy landlords and other persons of substance to settle in towns. This incidentally encourages absentee landlordism.

(*vi*) Administrative centralisation has increased the urban importance of the taluka town in comparison with the village, of the district headquarters in comparison with the taluka towns: and similarly in the case of divisional and State headquarters.

(*vii*) Facilities for secondary and higher education are practically confined to the bigger towns, and parents therefore often choose to live in them for the sake of the education of their children.

Influences working for the decline of towns

Side by side with this increasing urbanisation must be noticed the tendency of the older towns to be depopulated.

(*i*) Changes in regional values and diversion of trade routes have brought about the decline of towns which previously owed their prosperity to the command of river and road traffic, and now superseded owing to railway extensions, *e.g.*, Mirzapur on the Ganges, Patna, Saugor, etc. The engineer cannot always contrive that the railway line should pass by the old urban centres, so that being left a long way from the main line, some of them have naturally dwindled in importance.

(*ii*) The decay of urban handicrafts, following the disappearance of the old royal courts and the rise of the European competition has brought about a decrease in the population in some old Indian towns like Tanjore. Even sacred towns like Gaya and Banaras are losing their importance and population as a result of the fall in the demand, on the part of the pilgrims, for the products of the old industries of these towns.

(*iii*) Diseases like plague and cholera periodically turn urban area into charnel-houses and drive the population away to the open country. This movement is, however, only temporary in character.

Taking into account the two opposite tendencies of the growth and decline of towns we come to the conclusion that in recent years the tendency to urbanization is gaining the upper hand. This stands in marked contrast with what happened in England during the period of the Industrial Revolution. There the towns in the South decayed in a short time, but their loss was nothing in comparison with the rapid rise of vastly more populous urban centres in the North.

CHAPTER III

THE RISE OF THE MILL AND MINING TOWNS

Along with the emergence and the growth of the big city, with all its attendant evils of congestion, insanitation and disease, has been the sudden and rapid growth of mill and mining towns all over India. As a matter of fact, they are the backbone and tissue, the foundation, on which the structure of the bigger towns and cities is built, and on which they rely for their maintenance and prosperity. It is they which supply mostly the fuel and raw materials for the factories of the big cities. It is they, again, which perform the simpler and the cruder operations connected with manufacture and industry. But large scale production and specialisation have not left even these alone; so that we find these mill and mining towns specialising in and developing their own industries, and growing almost precipitately. The phenomenon of their appearance is, however, much more modern, and there are few which have any history previous to 1872; while many came into existence in the twentieth century. As a rule, they have altogether new and distinct characteristics.

Classification of Industrial towns

The commercial and the industrial towns as a whole are growing rapidly and at a considerably greater speed than either the country towns or the rural tracts. Let us consider the growth and development of some individual towns and their causes. It would be worthwhile to go into the more important causes and see what effect they had on the growth of each particular town. For the sake of convenience, these causes might be divided into the following four main heads, each of which will be discussed separately in the subsequent pages: (1) Railways, (2) Mines, (3) The cotton industry, (4) The jute industry.

The effect of Railways

In the latter part of the nineteenth and the present century in India, as in England and the Continent a little earlier, railways have played a very important part in the maintenance and growth, as also in the emergence and development of towns. As the premier means of transport, railways afford great and invaluable facilities for the exchange of goods and services. Almost all our important towns to-day are connected by one or the other railway line, and no town without it finds a chance of growth or prosperity.

Railways have also given birth to a number of towns, which have grown up round and near the huge establishments and workshops for the storing, repairs and construction of the rolling-stock and other necessaries, and which employ a large labour force. Thus Purulia and Jamalpur in Bihar; Asansol, Kharagpur, Kancharapara and Lillooah in West Bengal; Bezwada in Madras, Gondia and Bilaspur in Madhya Pradesh, Nasik, Thana, Bijapur, Bhusawal, etc., in the Bombay State, Rajkot in Saurashtra owe their growth and present importance mainly to their position as important railway centres. But this is not all. The size and importance of our big cities would not have been half of what they are if they had not generally been the important railway junctions. Railways have also brought about a great mobility of labour. Large industrial centres, like Bombay and Calcutta, and the extensive plantations of tea and coffee, are almost entirely dependent upon them for providing the labour which cannot be obtained locally.

Mines and Mining Labour

Mining is a comparatively new industry in India. In India about 3 lakh persons are engaged in the coalfields of Bihar, West Bengal, Orissa and Madhya Pradesh. Of the coal mines, the Jharia coalfield in the Manbhum district of Bihar supplies over 50 per cent of the total annual output of coal in India. Most of the labour force is not indigenous and is extremely migratory.

Growth of Jamshedpur

Coming to iron mines, we find that the Singhbhum and the Mayurabhanj districts of Bihar and Orissa respectively are practically the sole repositories of iron ore in India. Jamshedpur, the centre of the Tata Iron and Steel Works, is a creation of yesterday, or rather it is still being created to-day. Its romance is a romance of the twentieth century. When in sequence of the discovery of large quantities of iron ore of the best quality, Mr. Jamshedji Tata projected his iron and steel works, Sakchi and the other villages, which have since been absorbed into the town, were indistinguishable from hundreds of other agricultural villages. It was not till 1910 that the plant was actually put up, and at the Census of 1911 Sakchi had a population of 5,672 persons, mainly engaged in the erection of blast furnaces. Since then the town has grown by leaps and bounds. From 5,672 in 1911, the population rose to 57,454 in 1921; to 83,738 in 1931 and to 1,43,110, in 1941. Jamshedpur is now the fourth largest town in the State, and has since attracted many subsidiary industries in and around the Tata Works. There are few places where East meets West, or the ancient confronts the modern, in more violent contrast than at Jamshedpur. The Company looks after the health and welfare of the employees, provides them with fair house accommodation. The town itself is beautifully laid out, with parks, gardens, recreation grounds, free schools and dispensaries—all provided by the Company.

Rapid development of jute mill towns

Many towns in Bengal owe their phenomenal growth to the increasing importance of the jute industry. The industry is, however, confined to the banks of the Hooghly, and most of the jute mill towns are situated on a belt along the river, beginning with Howrah and Calcutta. The industry employs in all about 2,80,000 persons in the spinning, pressing and weaving processes. Some of the towns engaged in the spinning and weaving processes have grown with extraordinary speed. Naihati doubled in the seventy years ending 1941, while Bhatpara grew almost by 70 per cent in the same period. Titaghur more than trebled in the twenty years preceding 1921, while Budge Budge and Kamarhati almost doubled during the same period.

Cotton Industry in India

Last, but not least, has the cotton industry contributed to the rapid growth of a number of towns throughout the length and breadth of the country. This industry has had a very high and important place in the industrial life of the country. Although the industry was previously carried on by hand it had attained fairly high degree of excellence and importance when it had to face the competition with the mill industry of England. But feeble was the resistance that it could offer to the highly organised and well directed industry of the West; and which, above all, found a sympathetic, instead of a hostile, administration in the shape of the East India Company. The most ancient and important industry was thus practically crushed, but it soon raised its head again, and has once more stood up to face the foreigner, after fortifying itself with the most modern implements. At present the industry gives employment to no less than 5 lakhs of workers.

The new cotton towns

The new industry has been growing at rapid pace and it is no wonder that it has given rise to a number of towns fast. Besides Bombay, Calcutta, Madras Ahmedabad, Kanpur and Nagpur, which have already been mentioned, a number of smaller, but rapidly growing towns, owe their importance to the cotton industry. In Bombay, especially the number of such towns is very large and their growth markedly swift. Bhusawal and Jalgaon have both quadrupled in population since 1872, mainly as centres of the cotton industry while Bijapur, Bhulia, Rajkot and a number of other towns are also growing rapidly. The Madhya Pradesh, the second most important State in the country for the growth and manufacture of cotton, has also a number of rapidly growing towns. Wardha is an important industrial town, and has numerous cotton spinning and weaving factories, as also ginning and cleaning mills. Yeotmal has quadrupled, while Buldana, another important cotton town, has more than doubled, in the same period. Amraoti and Akola have increased by 74 and 159 per cent, while a number of other mofussil towns, *e.g.*, Khamgaon, Hinganghat, Warora, etc., have grown from ordinary villages to important industrial towns. In Uttar Pradesh the industry is practically confined to Kanpur, but in Bengal it has given rise to a number of important towns. Bhadreshwar Beihati, Kamarhati, all owe their present importance to some extent to the cotton industry, while Nadia and Budge Budge, other growing industrial towns in the State have considerable cotton mills.

The housing problem in mill towns

The small mill and mining towns we have been speaking about in this chapter have, unlike the big cities, no insurmountable obstacles in the way of a proper housing system, on account of the availability of sufficient ground space. The ground rent at these places is generally insignificant and land can be had for the asking. The real problem is, accordingly, with regard to capital and the agency through which the houses are to be constructed. The speed with which the population grows renders the most gigantic schemes of housing inadequate in a short time; and there is always an ever-recurring need of houses. The absence of municipal or other restrictions with regard to building and sanitation in these small towns generally renders them peculiarly liable to insanitary and unhygienic conditions. Moreover, the gregarious instinct of the Indians indu es them to make congested houses, if left to themselves ; and, accordingly, we find the curious phenomena of crowded housing even in places where there is no lack of ground space. The municipal bodies in the small towns are generally too poor to look to these matters, so that proper drainage, good water-supply and even efficient sanitation and cleanliness cannot be provided for. A very satisfactory solution of the problem can be found in a fruit and vegetable garden, which, if laid out in the heart of the town, will not only consume, with profit to itself, the refuse and dirty water of the town, but also add to its beauty and general appearance.

CHAPTER IV

VILLAGE LABOUR FORCE IN THE CITY

The lack of a tradition of wise social administration has been the most unfortunate aspect of industrial development in India. We have failed to recognise clearly that the responsibility of any industry or any service is not complete when it affords to itself alone a margin of material advantage. As a result, too long have we been socially complacent towards human insufficiency, failure and suffering. It is only in recent years with the pressure of population in industrial towns, that we have begun to appreciate, though not fully, the economic and social significance of housing.

We have seen in the Chapter " The Growth of Towns and Cities in India" how since the beginning of the present century Indian cities like Bombay and Calcutta, have doubled and trebled their population; others like Madras, Madura, Nagpur, and Kanpur have all increased their numbers with amazing rapidity ; whilst new towns like Bhatpara and Jamshedpur have sprung up in areas which were hitherto undeveloped. While some centres, like Kanpur and Ahmedabad, recruit their workers mainly from adjacent districts where population pressure is severe, Bombay and Calcutta attract them from even such distant places as Madras, the Uttar Pradesh and the Punjab.

Let us take Bombay as an example. Its labour force is found to be largely rural, though drawn from all parts of the country. Several thousands of workers from the villages of Deccan, for instance, are employed in Bombay's docks and mills. Rural areas of Saurashtra and Kutch provide the city with large number of shopkeepers, domestic servants, clerks and artisans. Surat supplies mostly domestic servants, while from other parts of Gujerat come artisans, clerks and labourers. The Portuguese settlement of Goa provides not only cooks and butlers but also a considerable number of artisans and clerks. Thousands of workers from the Uttar Pradesh are employed as weavers in the cotton mills, as artisans in the engineering works and also as coachmen, syces and coolies. The Punjab villages supply Bombay with weavers, mechanics and blacksmiths.

Thus the village artisans, agricultural and field labour classes, which form the lower castes of village society, are the chief sources from which Bombay draws its working classes. Thus with the introduction of the machine industry and its concentration under the factory system in big cities, began that large scale exodus of population from the village to the city which has been so striking a characteristic of India's industrial revolution.

The city's newness, the rapidity of its growth, the varied cultural background of its people and the diversity of their activities and interests make social control a perpetual problem. This has given rise to a variety of social problems, the chief among them being that of housing its ever-growing working population and eliminating its blighted areas. Overcrowding, bad housing, defective sanitation disease and a high death rate especially owing to T. B. are all now outstanding characteristics of our industrial cities. Their industrialisation, to be sure, has not been an unmixed blessing. While stimulating trade and commerce, it has added to the population large numbers from the lower strata of the village community. And they are becoming a constant menace to public welfare, since the cities are not able to cope with the problem of houstng them, much less of training them in the city's standards of life and conduct.

The general shortage of houses in practically all of our industrial areas is acute and has led to overcrowding. Obviously such overcrowding can never be conducive to family life. And yet hundreds of thousands of adults of both sexes, and boys and girls, are growing up under these conditions in which no provision can be made for what are ordinarily called the decencies of life. Since both sexes have to share the same room for all purposes, modesty is an impossibility for many living under such conditions. Self-respecting workers, therefore, prefer not to live under such conditions with their families. They leave them in their village homes, and live in the city as single men. This situation makes the city's population masculine in character. Similarly, there is an ever-increasing army of single women engaged in factories and other occupations. Unmarried young women, widows and deserted women form a good proportion of women workers. The existence of such non-family groups in industrial cities gives rise to serious problems of personal and social disorganisation.

One among such problems is that of living familyless in such a way as to save as much as possible for village dependents. Very often several single men join together and share a room ; sometimes one finds as many as 20 men living in a single room. In some cases, night and day shift workers rent a room together, one set keeping it warm by day, and the other by night. Hundreds of others, who cannot find accommodation at low rates, live in the streets and sleep on the pavements, doorsteps and verandahs of godowns in the vicinity of the harbour.

To reduce the high cost of living, quite a few of the working class families take single men or women as lodgers. But the stranger in the home is often a cause of disruption of marital and family relationships. His or her presence reduces the family's privacy and complicates the problems of daily living.

The villager spends his life in a community which is a small homogeneous and relatively social group. Though isolated, it is really a well integrated and self-sufficing social organisation whole unit is not the individual but the group itself. Hence, the individual is a member of a fixed system from which escape is normally impossible.

The most noteworthy feature of this village society, is the caste and joint family systems which control, mould and define the social behaviour of its various members, and promote their welfare through co-operative effort and projects of mutual aid. The villager's birth, therefore, determines irrevocably the whole course of his social and domestic relations ; he must throughout life eat, drink, marry and give in marriage in accordance with the usages of the social group into which he was born.

The most tragic aspect of such oppression of the lower classes in the villages is the development of an outlook of despair and dependence, of lack of confidence in their own capacity to lift themselves and control their density. Man after all is a creature of habits and to most of the rural inhabitants life consists, in a large measure, of habitual response to the demands of a fixed social system.

The working population of the city is made up mainly of villagers who are born and bred under such social conditions. As a result, they bring with them into the complex urban environment the habits, attitudes and values which had been called forth by the relatively simple conditions of their village homes. With their rustic patterns of thought they are forced to struggle with the city's sophisticated ways of doing and behaving.

Thus the problems of adjustment become particularly difficult. The greater the change, and the more suddenly it is made, the more difficult is the problem of adjustment, because the village migrants are confronted with the necessity of making a transition from one group of standards to another, from a simple rural culture that is old and fixed to one that is new, more complex and in a state of flux.

The villager in the city has to learn to use new sanitary facilities, new means of transportation, to work in close proximity with people of other castes and to live with others who are likely to be complete strangers. In the country, the intimacy of the primary group played a large part in his whole scheme of life. His conduct was largely governed by the modes of the group in which he found his refuge. In the city he finds himself out of place, being different from the city folk. Hence he becomes more or less detached, knowing many people casually and few intimately. He comes into contact with varied modes and folkways. His old absolute standards of right and wrong are often shaken and challenged. He lives in a hideous overcrowded tenement in a blighted area where any thing like a real home life is out of the question. There he soon discovers that all inhabiting neighbourhood sentiments, to which he was accustomed in his village, are absent and that because of their absence the prostitute, the gambler and others of their like find it convenient to establish their resorts in such areas.

Further, under the conditions of city life, village community sanctions and prohibitions easily lose their significance ; customs applicable to everyone in rural localities seem to apply to a few or to nobody; differences of religion, language, province and economic conditions breed internal conflicts and disrupt cultural habits ; the lack of privacy in the crowded tenements destroys the privilege and relaxation of home. Out of such conditions grows an increasingly loose family relationship the familiar restraints ; standards and ideals of sex conduct also breakdown, and naturally that bundle of emotional attachments, which underlie sound family life and the orderly relationship with neighbours, begins to disintegrate. The ties which gave village life its corporate and organic character are loosened; and life tends to become individualised.

The health of the worker is also subjected to a severe strain owing to differences of climate, a poor dietary, excessive congestion, lack of sanitation and the temptations of enforced separation from the family. Further, he lives and works under conditions and circumstances which are new in his experience and completely at variance with anything he has had to face previously. In the village he was used to spasmodic work with long intervals of leisure, and he is now required to work continuously. Disciplined hours of toil are a strain to the body. The stress and strain of long hours of work, poor food, suppressed or thwarted impulses produce fatigue which is deepened by a sense of loneliness, for nowhere does a single person feel so lonely as in a big city, And the lack of recreation, anonymity of city life and bad companions lead him to seek questionable pleasures.

But that is not all. To overcome depression and the physical discomforts of cheerless conditions of living, the unhappy, maladjusted worker gradually takes to drink. Between 8 and 10 per cent of the income is spent on liquor by those members of the working class families who drink, and the single man spends more on drink than the man living with his family. Alcohol lessens his social inhibitions and releases the lower impulses of this nature. He, therefore, becomes quarrelsome and heedless of the welfare of his family and of others in community. The result is that there is an alarming growth of the social vice in the industrial life. Then too there is a rapid spread of venereal diseases first in the city and later in the villages with the return of the worker to his home. Sexual immorality plays a large part in family disharmony.

The urbanisation of the villager results most often in the disintegration of the personal relationships envisaged in the patterns of behaviour developed over long periods of subjection to an entirely different environment. Moreover, the rural migrant himself tends to become unsettled. The village culture played a large role in the formation of his habits of thought and life. He was patterned, shaped and moulded by the culture traits of his village. And now all of his habits and aptitudes formed in such an environment are subjected to the stress of readjustment and reorganisation to meet the new situation. In the village society, he played certain well defined roles, under changed social conditions, he must reorient himself as roles are defined for him by social groups under whose influence he now lives. If he is handicapped physically, mentally or emotionally, this redefinition of the self is more difficult. Naturally therefore, when the traits and complexes already formed are inconsistent with the requirements of city life, they produce strain, tension and conflict. Thus the emigrant villager gets into all sorts of difficulties, becoming finally a problem to himself and a menace to the civic life of the city.

Similarly, young unmarried women, widows and deserted women who work in the city are also exposed to moral dangers. Large numbers of women now work in factories and their supervision by male jobbers leads to serious abuses. Even where women workers are placed under the supervision of women, the greater evils arising from male supervision are not always eliminated.

The problem of housing single women workers is further complicated by the recognition of their need for social protection as well as the amenities of life. Such amenities cover decent rooms, wholesome food at reasonable prices, and some provision for cultural and recreational life. This kind of work is being done by the Y. W. C. A. for the better class women.

Thus, to stabilise its working population, our industrial cities must effect improvements in the conditions of living and provide a more congenial environment for them. Conditions of living together in great aggregations require new adjustments, quite different from the pattern that had been worked out in the villages. There is a break with traditions and patterns of conduct developed and approved by the village group in response to conditions of life foreign to the city. The city must, therefore, adjust its arrangements so as to protect the newcomers and aid them in the struggle to adapt themselves to changed circumstances. Hence comes a challenge to all those interested in the housing of the urban working classes to strive to bring the various traditional objectives of urban housing policy—slum clearance, reducing the overcrowding of dwelling, and decrease of rents—under the wider aim of family protection and welfare ; it is most important to link housing to family needs and welfare if lasting improvement in family life is to be effected. And further they should also devise methods of training the migrant workers in the art of living in the city and making their reorientation to city conditions easy and gradual.

CHAPTER V

GROWTH AND DISTRIBUTION OF INDUSTRIAL LABOUR.

The vast majority of Indian population being predominantly agricultural, the development of an industrial working class is a comparatively recent phenomenon in this country. For a long time the surplus village population consisting of landless labourers and dispossessed cultivators was absorbed in the cottage industries where they worked on the wage system under artisans and financiers. It was this ' surplus ' population which up to the end of the 18th century supplied the markets of Europe, West Africa, the Middle East, Central Asia, the Indian Archipelago and Japan with its famous muslins, calicoes, *chhints*, silk goods, salt-petre and other goods of the Indian cottage industries. In the 17th and the 18th centuries, India was in fact the industrial workshop of the world. Modern factories are of recent growth.

With the gradual decline and ruin of Indian handicrafts and rapid increase of population from about 130 millions in 1757 to 254 millions in 1881, industries on a small scale could not provide adequate and regular employment to the growing landless class. In the middle of the 19th century large scale productive works during famines and irrigation, road and railway developments in normal times, maintained a steady demand for workers from agricultural avocations. From 1870 onwards large scale factory industries drew an increasingly large number of village workers to the cities and towns.

The following table shows the growth of factories and number of workers employed therein :—

Year.	Number of Factories.	Number of workers employed.
1892	**656**	**316,816**
1912	**2,710**	**869,643**
1923	**5,985**	**1,409,173**
1933	**8,452**	**1,403,212**
1939	**10,466**	**1,751,137**
1943	**13,209**	**2,436,312**
1944	**12,071**	**2,520,251**
1948	**15,906**	**2,360,201**
1949	**19,829**	**2,433,966**
1950	...	**2,504,399** **(Provl.)**

Unlike factory labourers in the Western countries the factory labour in India does not exactly constitute a wage earning class. Most of the factory labourers in the West have been brought up in the towns, and some have abandoned their country permanently for towns. The Indian factory workers are generally migrants and they rarely severe connection with their villages.

Agricultural Background

With the decline of small and medium scale industries and an uninterrupted growth of population, the pressure on land has been greater than ever. This has led to poverty, unemployment and indebtedness as well as to a steady migration of the village worker to factories and towns. The improved means of communications enabled the landless rural labourers to leave the village in search of work and higher wages in factories, mines and plantations. During the slack season or in times of agricultural calamity cultivators of small uneconomic holdings also seek employment in the towns.

This is the background against which the problems of the Indian working class are to be viewed. The tremendous pressure on land in certain parts of the country assures a plentiful and constant supply of migrant workers from the villages. The constant influx of fresh workers from villages anxious to eke out a livelihood, prepared to lodge in the most insanitary hovels centres always constitutes a grave threat to the standard of living of the urban worker whose wages are undercut by the newcomers.

Another aspect of the relationship between industry and agriculture is the fact that small farm agriculture itself receives considerable support from the organised industries. While a section of the labour force tends to settle permanently in towns their families still carry on agriculture. It is the regular remittances from the industrial workers which maintain uneconomic agricultural holdings. Thus an investigation conducted at the post offices serving the mills under the Indian Jute Mills Association revealed that in 1942 the money forwarded by the jute mill workers (total number 280,779) to their relatives in the Bengal villages amounted to Rs. 21,32,68,377. The amount of remittance per annum per worker was about Rs. 82, a very considerable income according to rural standards.

Industrial Structure

The pace of industrialization has been greatly accelerated in recent years. While much of this growth could be attributed to the impetus provided by World War II, the inherent momentum of industrialisation is also an important factor. This remarkable expansion is observable in almost all phases of India's industrial structure, *viz.*, Factory Industries, Plantations, Communications and Mining.

The number of factories in 1892, when factory statistics were first compiled, was 656, and the number of operatives employed 316,816. By 1939, the immediate pre-war year, the number of factories and workers had increased to 10,466 and 17,51,137 respectively; while in 1948, the corresponding figures were 15,906 and 23,60,201 respectively. In the years immediately preceding World War II, Indian industries as a whole had to face considerable competition from other countries. The outbreak of war, however, created an enormous additional demand for Indian goods and India's economy was geared to an unprecedented pitch of industrial activity.

The most important single group of industries is, of course, the Factory Industries Group. In this group, there are two sub-groups, *viz.*, regulated factories and unregulated factories. The regulated factories are further sub-divided into perennial and seasonal factories. The average daily employment in all perennial factories in 1948 was 21,23,000 against the corresponding figure for 1939, *viz.*, 14,60,284. The table below will show the proportion of workers engaged in these two categories of factories:—

Perennial and Seasonal Employment in India

(In thousands.)

Year.	Perennial.		Seasonal.	
	No. of workers.	Percentage of workers.	No. of workers.	Percentage of workers.
1939	1,460	83	290	17
1943	2,138	88	298	12
1948	2,123	89	236	11

It will be observed that a steady increase in perennial employment was followed by a decline in seasonal employment. Bombay, West Bengal and Madras take the lead in perennial employment. A region-wise distribution of Perennial and Seasonal employment as in 1948 is given below:—

Distribution of Perennial and Seasonal Employment in India

State.	Perennial workers.	Seasonal workers.
Ajmer	15,399	538
Assam	11,870	47,693
Bihar	1,23,145	25,063
Bombay	6,92,219	45,241
Delhi	36,894	...
Madhya Pradesh	79,034	22,612
Madras	2,72,697	16,625
Orissa	12,031	298
Punjab	31,802	4,823
Uttar Pradesh	1,93,524	48,549
West Bengal	6,52,966	25,735

The recruitment of labour in factory industries is in the hands of the jobbers who have neither calibre, status, education, nor competency to carry out such a responsible task. The jobber is the *de facto* recruiter and largely exercises the powers of dismissal, punishment and grant of leave to workers. The following table gives a rough idea of employment in different industries in the Indian Union and Jammu and Kashmir State:—

Distribution of main groups of industries in the Indian Union and Jammu and Kashmir State

	INDIAN UNION No. of persons employed (in 000)	JAMMU & KASHMIR STATE No. of persons employed (in 000)
Textile	11,49	7.4
Engineering	3,83	0.9
Minerals and Metals ...	92	0.1
Food, Drink and Tobacco	3,27	0.2
Chemicals	94	0.1
Paper and Printing ...	64	0.2
Wood, Glass, Stone ...	1,17	0.1
Hides and Skins	31	0.03
Gins and Presses	1,48	...
Miscellaneous	1,90	0.4
Total ...	25,95	9.43

Textile Industries

Labour in textile mills forms the largest single group of perennial workers. In 1945, 1,014,319 persons were employed in the textile factories. Though total employment in textile factories has been rising, the percentage share of textile labour in the total employment in perennial factories has, however, been steadily going down in recent years. It was 59.7 per cent in 1929 and fell to 47 per cent. in 1943. In the textile groups, in 1943, cotton spinning and weaving mills accounted for 63 per cent jute mills for 32 per cent and other mills for 5 per cent only.

Engineering, Minerals and Metals

Engineering, minerals and metals form the second largest group in industrial employment. The expansion has mainly been a war-time development. In 1945, about 755,434 workers were employed in this group. The main constituents of this group are general engineering, iron and steel, ship-building, ordnance factories and railway workshops. The following table gives figures for employment in these six important constituents:—

Factories.	1939	1945
Engineering group	302,708	765,434
Railway Workshops	104,058	146,903
Ordnance	30,709	185,605
General Engineering	50,346	149,268
Iron and Steel	40,790	90,331
Ship-building	18,534	32,854

The third group of perennial factories, comprising food, drink and tobacco factories, chemicals and dyes factories, paper mills, printing presses, wood, stone and glass works and leather works, has shown a considerable increase in recent years.

Employment in this section has risen from 155,000 in 1929 to 523,289 in 1943 and the percentage share has risen from 13.3 per cent to 24.5 per cent.

Seasonal Factories

Factories which work for not more than 180 days a year are termed as Seasonl Factories. They are comparatively small, are distributed over wide areas and recruit labour from among agriculturists. They mainly employ machinery, open for a part of the year only and are concerned for the most part with the handling of particular crop. These comprise two groups: (*i*) one consisting of cotton ginning and pressing, jute pressing, indigo shellac, tea, coffee and rubber factories, etc., and (*ii*) the other consisting of rice mills, oil mills, sugar mills, tobacco factories, flour mills and others.

Unregulated Factories

Figures for unregulated factories, that is, those falling outside the scope of the Factories Act, are not readily available. The Labour Investigation Committee has, however, estimated the number of workers employed in certain typical unregulated factory industries, such as mica manufacture, shellac, bidi-making, glass, etc. From this it appears that employment in unregulated factories, whether using mechanical power or not, is very considerable. In bidi-making alone some 500,000 workers were employed in 1944; in mica manufacturing, for India as a whole, the estimated total is 140,000; in shellac 25,000 to 30,000; carpet weaving, 7,035, coir mats and matting 70,000. The total employment in such factories may therefore, easily be in the neighbourhood of 1,000,000. In seasonal and non-regulated factories workers are still essentially agriculturists and the great majority live in their village homes, returning from the factories in the evening.

Plantations

The plantation industries are the second largest employers of labour in India, and comprise the three main industries, *viz.*, tea, coffee and rubber. The average daily employment in these three groups of plantations was about 7,42,000. The daily average rose to about 10,40,000 in 1935, to 11,50,000 in 1944 and to 12,00,000 in 1947. These figures mainly refer to daily averages but plantations are seasonal industries and the actual number of workers is much larger than indicated by daily averages.

In the plantations group, tea plantations are the most important one employing a total of 983,476 workers in 1947. Nearly half of them are working in Assam, while the remaining are distributed in West Bengal, Madras, Punjab, Bihar and Uttar Pradesh.

Next to tea, coffee plantations employ the largest number of workers, although it appears that total employment here, as in the case of tea, also shows some stagnation. The number of workers employed was 102,903 in 1935-36, 110,760 in 1944, 150,512 in 1946 and 152,077 in 1947.

Rubber plantations come next in importance. About 45,000 workers are employed in this industry. Both coffee and rubber are concentrated in South India.

Employment in the plantation industry is a highly fluctuating affair, depending upon the vagaries of internal and and international demand.

Communications

Communications constitute the third largest group among the employers of India's industrial labour. This group comprises mainly Railways, Docks, Trams and Buses, the Mercantile Marine and Inland Water Transport.

Railways employ a major part of Indian transport labour. According to the census figures for 1931, 636,311 out of a total of 2,241,406 employed in transport industries were railway employees. Employment in railways increased gradually till 1939 when the figure for total employment was 699,153. During the war, employment in railways rapidly increased and in 1944, it reached to 889,056 showing an increase of 21.4 per cent. The process of nationalisation of railways has been going on speedily and in 1944 State-owned and State-managed railways employed 813,217 persons out of an all-India total of 889,056.

The principal Port Trusts in India, *viz.*, those of Bombay, Calcutta, Madras, Cochin and Visakhapatnam employ about 40,000 workers.

The principal towns having tramways are Calcutta, Bombay, Madras and Delhi. The total employment in tramways in all these places in 1944 was about 15,000 ; of these nearly half were employed in Calcutta alone.

Mining Industries

The fourth important group of industrial workers in India consists of the labour employed in mines. The average daily number of workers in all registered mines during 1929 was 2,69,701. This gradually increased to 471,751 in 1950. During the last 45 years for which statistics are available, the mining industries have had a chequered career. Till 1914 their development was steady. The year of the first World War accelerated the pace, but the momentum gained in those years was soon exhausted. The depression beginning in 1929 seriously affected mining in India and employment went down appreciably. World War II gave a certain impetus to some industries in this group but expansion was meagre as compared with factory industries. Whereas between 1939 and 1943, employment in factories increased by 39.1 per cent that in mines increased only by 14.4 per cent. The following table gives figures for employment in mines subject to the Indian Mines Act:—

Year.	No. of Mines	No. of Workers
1904	542	104,660
1924	1,804	258,217
1926	1,897	260,113
1933	1,424	206,507
1936	1,973	269,593
1939	1,864	305,344
1943	2,329	349,361
1944	2,359	364,948
1945	2,151	386,290
1946	2,119	412,719
1947	1,976	407,263
1948	1,897	395,865
1949	2,051	421,159
1950	2,096	471,751

Over 85 per cent of the total mining labour is employed in the coal, mica, and manganese ore mining industries. Labour employed in collieries is by far the largest and best organised group among the Indian mines. From 95,309 in 1901, employment in the coal mines had gone up to over 213,000 in 1943 and to 318,354 in 1949. Of the total employed in coal, Bihar alone absorbs about 2 lakh persons. The remaining States in which coal mines are located are West Bengal, Madhya Pradesh, Assam and Orissa.

Mica mining in India which produces about 80 per cent of the world's mica is the second largest employer of mining labour. Mica being one of the strategic minerals, its production was greatly increased in the course of the last World War. During 1939 about 32,000 persons were employed. During the II World War the number rose to 60,000. It has again fallen to 32,000.

Mica industry is concentrated in three regions only; Bihar, Madras and Ajmer-Merwara. Of the total of 31,490 persons engaged in Mica, 22,908 are employed in Bihar, 6,954 in Madras and the rest in Ajmer-Merwara.

In recent years a number of mines were opened in Rajasthan where about 5,000 workers were employed in 1945.

Most of the manganese ore mines are situated in the Madhya Pradesh though a number of these have been worked in Bihar, Bombay and Madras also. The demand for high quality ore was great during the war days, but paradoxically enough, employment decreased from 27,452 in 1939 to 24,271 in 1943. The industry employed 15,797, 9,580 and 15,092 workers in the year 1944, 1945 and 1946 respectively. At present it employs about 23,000 workers.

Among others, mention may be made of the gold, iron ore and copper ore mining, and stone quarrying industries. The total employment in gold mines mainly situated in Mysore, was 23,924 in 1939 and 19,936 in 1943. Iron ore mines are situated in Bihar and employ 15,833 workers. Copper ore mines employed 3,092 persons in 1939 and 3,605 in 1949. The stone quarrying industries employed about 20,000 workers.

As compared to her large population, India's industrial labour absorbs only a fraction of her man-power. The country, however, is gradually getting industrialised.

CHAPTER VI

CATEGORIES OF INDUSTRIAL LABOUR

India to-day is an industrial power, with a growing labour population. Out of the 350 million people in India about 150 million are workers, male and female, who earn their living by agriculture, industries, mining transport services, commercial services, fishing, navigation, etc.

The importance of building an efficient and contented labour force is being understood more and more by Government and the people. The Royal Commission on Labour (1931) was the first outstanding landmark in the history of Indian Labour. The Indian workers at that time were not properly organised. Since, there has been developing a great concentration of working class population in industrial areas resulting in the rise of an industrial proletariat. The conditions created by the first World War gave an impetus to workers to form trade unions for demanding redress of their grievances. A sort of class consciousness has born among the industrial workers. The need of joint resistance to exploitation through collective action has been greatly appreciated by them.

The second World War brought about great changes in the structure of Indian industry and labour. There has been a rapid growth of employment in the country. Since the cessation of hostilities, however, a new problem has been created—the problem of demobilisation and re-employment. During the war, some of the workers had obtained higher rates of wages. Therefore, apart from finding new employment for the demobilised there is also the problem of an assured standard of life to the worker, higher than pre-war. More awakening has come among the workers as a result of socio-economic upheaval in the country. Labour is no longer prepared to remain the drawer of water and the hewer of wood for the benefit of the class. Political independence, labour asserts, should have brought economic independence to the workers.

Cotton Mill Labour

India is the birth place of cotton textile industry and even at present by virtue of its antiquity and importance it takes the first place among Indian industries. The industry gives employment to about 5 lakh workers, besides affording subsidiary employment to a large number engaged in various trades directly depending upon the industry. In 1943, there were 400 mills, 10,130,568 spindles and 200,890 looms with a capital investment of 40 crores of rupees.

Unlike the jute industry, cotton textile industry is not localised in a few centres but is found in every part of the country. Bombay State is its home and employs 4,09,408 workers. The other important centres are Madras, West Bengal, U. P., Madhya Pradesh and Madhya Bharat.

About 11 per cent of the workers are women. Hours of work are generally 48 per week. Working conditions inside the factories are on the whole satisfactory. Except at Ahmedabad, the wages have not been standardised. The workers are being compensated by the grant of dearness allowance. But the industry has treated its workers generously in regard to the payment of a war or profit bonus, the latter amounting to three months' wages per year in some of the important centres.

In the factories situated in the south, medical examination of operatives is enforced and in some cases, a standard of literacy is insisted upon. In the Madura mills recruitment is made through the trade union. The workers' organisation in Ahmedabad furnishes another example of the strength of the trade union movement in this country. This union has formed itself into a federation of 8 occupational unions with a membership of about 54,000 workers.

Cotton Ginning and Baling

Cotton ginning and baling industry is the most important seasonal industry of the country and provides employment to about 120,000 persons. It is mainly located in Bombay, Madhya Pradesh, and Madras. On an average the factories work for about 150 days in the year and the season differs from region to region. The labour force is thus highly unsteady and migratory.

Jute

Judged by the number of persons employed, the jute industry ranks second only to the cotton mill industry. The industry plays a very important part in the national economy of India. Out of a total of 3,29,429 workers engaged in jute mills, as many as 3,07,350 are employed in West Bengal. The other centres are Uttar Pradesh, Bihar, South India, Raigarh and Chandernagore and are manned mainly by non-Bengalis—Biharis and men from the Uttar Pradesh. Nearly half the workers live single and make occasional visits to villages.

Working conditions within the mills are generally satisfactory. No profit or prosperity bonus is granted to jute mill workers. Trade Unionism has made much headway. Since nearly half the labour force employed in the industry live single, the need for organising welfare activities on an extensive scale is very urgent. The main problems facing the labour in Jute Industry are briefly the following:

(1) Standardisation of wages (2) Better housing (3) Provision of a Provident Fund or Gratuity (4) Welfare work.

Silk

Scattered all over India, the sericulture belt runs from Kashmir and Punjab in the north to Mysore and Madras in the south, from Bombay in the west to Bengal and Assam in the east. Though only 52,787 persons were employed in silk factories in the year 1949, the industry provides means of sustenance to thousands of families of agriculturists engaged in the primary stages of silk-worm rearing. A large number of women are employed. The hours of work are nowhere excessive. Trade unionism is conscpicuous by its absence.

Woollen Textiles

The chief centres of woollen textile industry are Kanpur, Dhariwal, Amritsar, Bombay, Mysore and Kashmir. It was estimated in 1943 that there were 32 woollen mills in India giving employment to about 18,000 persons. Working conditions inside the mills are considered quite satisfactory. The larger units of the industry have devoted considerable attention to the provision of welfare activities for their workers. The wage level is more or less similar to what prevails in other organised industries.

Carpet Weaving

From time immemorial carpet weaving in India has been a flourishing industry. Important centres of production are Srinagar, Amritsar, Agra, Gwalior, Jhansi, and Mirzapur. The industry is sweated and working conditions are fairly bad. Carpet weaving calls for a very high degree of skill and workmanship.

Coir and Coir Matting

The coir industry, the largest industry on the Malabar Coast, provides employment to about 30,000 families in the preliminary process of manufacture and to about 70,000 workers in the final stages of production. Conditions of work are far from satisfactory even in regulated factories.

Tanneries

The tanning and leather goods industry is one of the oldest industries in India. It is heavily concentrated in U. P., Bengal and Madras. It can be divided into three types—primitive village tanning, improved indigenous tanning and modern tanning. From the point of view of total production, primitive village tanning is the most important as it is scattered almost all over India. It caters to the needs of the ordinary village folk. Improved indigenous tanning prepares hides and skins for purposes of export. The leather is tanned but it is not processed fully. This type of tanning is popular in Madras and Bombay.

Modern tanning consists of chrome tanning, improved vegetable tanning, oil tanning and alum dressing. There are very few such tanneries in India and working conditions in them can be described as deplorable. Hours of work are utterly unregulated and children are also employed in some centres. In Madras and Kanpur workers have formed trade unions. Provisions of the Factories Act are not generally followed, especially in the smaller units. The U. P. Government are running three welfare centres in the areas inhabited by the leather workers at Kanpur.

Paper Mills

Though paper making has been one of the oldest industries of the country, the industry as a factory industry is of relatively recent origin and growth. During 1943-44, about 19,000 persons were employed in this industry. The present number is about 22,000 workers. Bombay has the largest number of mills but from the point of view of production and the number of persons employed Bengal continues its pre-eminence. In U. P. there are four factories employing nearly 2,500 persons. The total number of units in the Industry was 22 in 1943-44. The working conditions are generally satisfactory. The industry has made arrangements for medical relief by establishing dispensaries. A striking feature is the successful working of workers' co-operative societies in the units in Bengal. Trade unionism in the industry is extremely weak.

Iron and Steel

The easy access to iron ore and coal has made Bihar the home of the iron and steel industry and Jamshedpur, where the Tata Iron and Steel Company is established, has further advantages in that it is situated on the banks of two rivers. Likewise, Burnpur in Bengal and Bhadravati in Mysore, two other important centres of the engineering industry, owe their location to similar factors.

The iron and steel industry was established in India 45 years ago when the Tata Iron & Steel Company was established in 1907. Today the largest steel producing centre in the country is Jamshedpur, a modern town of 1,43,600 people. Out of these 68,000 are steel workers. The town is built on garden city lines with public markets, 70 schools, including 3 high schools with a teaching staff of 500 working in 7 different languages. The city also boasts of a 160 bed hospital, where medical care is free, and has maternity, dental, anti-rabic and leprosy clinics. 19,000 housing units have been built in Jamshedpur by the Company and further loans have been granted to about 3,300 workers who want to build their own houses.

The eight hour day only recently general in Western countries has been worked at Jamshedpur since production began in 1908. Recently, a profit sharing scheme was introduced amongst the workers in Jamshedpur. By this profit sharing bonus scheme the employees participate more directly in the profits and to a greater extent than before.

Engineering

The engineering industry covers a very wide field comprising a variety of trades, such as Coach Building, Electrical Engineering Kerosene Tinning, Ship-building, and a host of Railway Workshops and Ordnance factories. There are well over 5,50,000 persons employed in these industries. The States of Bombay, Bengal, Madras and the Punjab account for nearly 75 per cent of the engineering concerns in India. There is an absence of uniform terminology for the various occupations of this trade. Terms like "fitter" "moulder" "mistry" "machineman" "khalasi" etc., have scores of different connotations in different parts of the country.

General engineering is the most important branch of the engineering industry and from the point of view of number of workers employed, it comes third, the first two being Ordnance Factories and Railway Workshops. In 1943 there were 2,929 factories employing 5,13,613 workers. Most of the factories are small units and are situated in urban localities.

Electrical engineering which includes electrical generating and transforming stations claims a total of 199 factories with a personnel of over 22,000 workers. Like sulphuric acid, the electrical engineering industries serve as an index of the industrial prosperity of a country, playing a vital role in India's industrial organisation. The industry is localised in Madras, Bombay, Bengal, U. P., Punjab and Bihar.

Viewed from the number of workers employed, Railway Workshops form the most important branch of the engineering industry, the percentage of workers being 27 of the total engineering employment.

Coach-building and motor repairing form another branch of the engineering industry claiming about 20,626 workers and 166 factories. There are then the metal stamping industries which include the manufacture of brassware, aluminium, brass boilers, nuts and bolts, washers and similar odd metal works. The industry is concentrated in urban and suburban areas. There has been a great expansion of the industry during war-time.

The Ordnance depots and factories employed over 1,31,000 workers in 1943. Lastly there are miscellaneous engineering firms engaged in the manufacture of bicycles, surgical instruments, hospital furniture, etc.

A typical worker in the engineering industry is the mistry who belongs to a class in which the skill is passed from father to son. The initial development of the skilled engineering workers arose entirely as a result of the practical experience of men who entered the factories when they were comparatively young and gained their knowledge of the processes of industry over many years of practical experience. To a very large extent, this system of informal training will continue. There are a number of trade unions which are not registered.

Glass

The glass industry in India presents an interesting panorama with *sishgars* manufacturing bangles and other hollow-ware on small scales in the old traditional ways at one end and the huge glass-ware factories producing at great speed at the other.

The operations of the former are governed by no labour laws whatever. About 6,000 workers are employed in Firozabad cottage shops alone. The joining, cutting, enamelling and painting shops employ on an average five persons each. It is estimated that the industry gives employment to a total of 28,000 workers.

The glass industry falls into three broad divisions according to the nature of goods produced, namely, (1) Bangles, (2) Sheet Glass and (3) Hollow-ware. Serious evils prevail in the industry in spite of factory laws and in the cottage industry conditions of labour seem to be actually worse. Owing to the seasonal nature of the industry, the glass factory workers have not been able to organise themselves into strong trade unions.

Chemical Industries

The chemical industry can be divided into two main parts:— The Heavy chemicals and the Fine chemicals. The Heavy chemicals are produced on a very large scale in big organised undertakings employing large number of workers. Fine chemicals which are produced on a small scale number 4,000 different items. Bengal, Bombay and Madras are the three States where the chemicals industries have developed most. Mysore and Baroda are the other two important centres of production. In the bigger units of the industry, working conditions are generally satisfactory. There are very few trade unions.

Cement

The industry as a factory industry is of comparatively recent origin. It employs about 16,000 workers in 15-16 units and the size of the units varies greatly. There are small factories employing as few as 124 persons while the largest unit employs about 3,000. The industry is located in Bihar, Orissa, Madhya Pradesh, Madras, Punjab and Bengal. Working conditions inside the factories are generally satisfactory and welfare activities are, in comparison, well in advance of other industries. As the factories are generally located in out of the way places where no amenities exist, welfare work by employers is not only desirable but necessary.

Sugar

From time immemorial, sugar industry has flourished in this country. It is at present concentrated in the States of Bihar, Uttar Pradesh, Bombay and Madras. In 1939, 75 per cent of the total labour force in this industry was found in Bihar and the Uttar Pradesh. The total daily employment in both seasonal and perennial sugar factories in all the States comes to 95,813. The localisation of the Industry in the countryside made factory inspection a difficult task. The workers are mostly disorganised and do not possess any great bargaining capacity.

Rice Mills

Of all the industrial establishments falling under the Factories Act, the most numerous group is that of rice mills. But in respect of the size of the labour force, it employed only 52,000 in 1945. Another interesting fact about this industry is that rice mills are the most diffused throughout the country, and are found in almost every nook and corner of the country. Bengal and Madras are, however, the most important centres. The Royal Commission on Labour pointed out certain general characteristics of seasonal industries in the following words: " The main feature of nearly all the (seasonal) industries is that the workers are still essentially agriculturists and the great majority live in their village homes. The degree of skill required is seldom great and the proportion of women employed is fairly large. The factories are not concentrated but are naturally scattered over the areas producing the crops with which they deal. The small scale factory is the rule and the large one the exception. The workers are quite unorganised and wages tend to be low." These characteristics are largely true of the rice mills today. The welfare activities in the factories leave large scope for improvement. The workers are not well organised anywhere except in Madras, and trade union activity in many centres has not included workers in rice mills. In Madras, there are about 832 concerns, employing an average daily number of 23,690 workers. In 1939 there were 392 mills in Bengal employing 14,865 persons. In Madhya Pradesh there were 161 rice mills employing 3,843 persons in 1943. Other States in order of importance (1943) are: Bihar (91 mills and 5082 workers), Orissa (70 mills and 2,711 workers), and Bombay (53 mills and 645 workers).

Tobacco

India is one of the principal tobacco producing countries of the world, and the product is almost entirely used for home consumption. The *Bidi*, *Hooka*, Cigarette, Cigar, and Cheroot are the common forms in which tobacco is smoked.

Judged by labour conditions, the *Bidi* industry is one of the most unorganised industries in India, though employing nearly half a million workers. A large number of women and children are employed in *bidi* manufacture. Madhya Pradesh, Madras and Bengal are the chief *bidi* manufacturing States ; Calcutta, Bombay, Bangalore, Saharanpur and Monghyr are the important centres of cigarette manufacture. Cigars are made solely in South India, the important centres being Trichinopoly and Dindigul in the Madras State. The employment of children of tender years constitutes a grave industrial evil. In the cigar industry women are not generally employed. Employment in bidi and cigar industries is irregular depending on weather, availability of material, etc.

Trade unionism has made some headway in these industries. Immediate problems facing the worker relate to the unhealthy working conditions, long hours of work, employment of women and children, deductions from wages and the sub-contract system of organisation. The out work system is not conducive to industrial welfare and steps have to be taken to encourage establishment of big factories in the *bidi* and cigar industries.

Printing Presses

The first printing press came into use in India in 1778. In 1780, the first Indian newspaper " India Gazette " was issued from Calcutta. The development of the Indian Universities and the Vernacular Press Act of 1878 gave the printing press a permanent place in the social and economic life of the country. Today the presses are scattered all over the sub-continent and in 1943 they provided employment to over 44,000 persons, exclusive of the workers in the old Indian States. Of this, 14,423 were employed in Government Presses. The regulated presses are governed by the Factories, Electricity, Workmen's Compensation and Payment of Wages Acts. Working conditions are not satisfactory. The Trade unions are not strong because the average unit is very small in size.

Matches

There are about 150 match factories scattered all over India giving employment to about 16,000 workers. Nearly 50 per cent of the workers are engaged on a piece-work basis. Working conditions inside the factories are generally satisfactory though in the smallest units of the industry there is room for improvement. This industry is a fruitful source of public revenue in as much as the Excise duty on matches brings about 7½ crores of rupees per anum to the Central Exchequer.

Shellac

As in the case of mica, India holds a virtual monopoly in the production of lac, a resinous substance secreted by an insect. The main lac-producing regions in India are found in Bihar, Madhya Pradesh, Uttar Pradesh, West Bengal and Assam and the old Central India and Eastern States. Bihar produces 68 per cent of the total stick lac, Madhya Pradesh and Madhya Bharat about 17 per cent, Assam 3 per cent, and other areas 12 per cent. As regards shellac product, Bihar, again, leads while U.P., Bengal and Madhya Pradesh follow in a descending order of importance. The most important consumer of shellac is the gramophone industry which absorbs about 30 to 40 per cent of the whole output. The industry is still largely on a cottage basis, and the initial capital investment needed is extremely small. Thus labour conditions in the shellac manufacturing industry broadly illustrate the position of labour in unorganised cottage industries. The total employment in the seed—lac and shellac industry is between 25,000 and 30,000 and is subject to violent fluctuations. Labour conditions in the industry are unsatisfactory.

Coal

There are now about a thousand coal mines in India employing 3,08,263 persons, mainly concentrated in Bengal, Bihar and the Madhya Pradesh. There are also a few mines (yielding about 11 per cent of the total Indian production) located in the old Indian States. Most of these have since merged with the Indian Union. The industry is mainly owned and managed by private enterprise except in the case of the Indian Railways, now a State undertaking, which own several rich coal mines. The bulk of the coal is hewn by manual labour and mechanisation has not made much progress.

During the agricultural season, the colliery labour has a tendency to migrate to the villages as it is economically more remunerative to do work on land during this season than in the coal fields. Conditions on work differ widely in the different coal fields. Some mines which have electric fans or ventilation underground compare favourably with the conditions in countries abroad.

Provision of pithead baths and of creches—the latter in mines employing women—has been made compulsory by law. On the basis of the recommendations made by a specially appointed Board of Conciliation, the workers in the coal mining industry have received very substantial increases in wages which now places them in a more favoured position than those in other industries in general, the difference being even more marked if account is taken of the additional benefits received through the schemes operated through the welfare cess.

Manganese

Manganese mining is one of the major mineral industries of India and gives employment to about 40,000 workers. Madhya Pradesh is the most important centre of production and has a virtual monopoly of the high grade ore. Other centres of production are Bombay, Madras, Bihar, Orissa and Mysore, States. Wages in this industry are considered unattractive and working conditions leave much to be desired. Workers in the manganese mines have no organisation to speak for them.

Mica

India holds almost a monopoly of superior quality mica. This position has been attributed to the low cost of producing mica splittings and the plentiful supply of cheap labour readily available. The skill of the Indian worker is acknowledged on all hands to be of an exceptionally high order and mica was sent to India from Brazil, the U. S. A. and Canada for being manufactured into splittings. The main mica belt of Bihar is included in an area 90 miles long and about 20 miles wide, extending from Gaya District on the west to Bhagalpur district on the east. In Madras the mica belt covers about 500 square miles on the coastal plains within Nellore district. The industry employs about 250,000 men, women and children throughout India. The mica manufacturing industry has never had to face any shortage of labour. Mica mining is extremely hazardous and the mines are unhealthy and uncomfortable. Labour conditions in and out of the mines are most deplorable.

Gold

The gold mining industry in India is perhaps the only industry in the country located in a limited region of 23 square miles. Situated in the Mysore State the industry gives employment to over 20,000 workers. In the town of Oorgaum which has sprung up in the Kolar gold field lives a colony of workers who have made it their adopted home for the last 50 years.

Working conditions inside the mines are very satisfactory and everything possible is being done for the safety and well-being of the mining community. The relations between the employers and the employees are on the whole very cordial. The mine workers have their own labour associations and trade unionism has taken deep root.

Iron Ore

The total number of persons employed in this industry is estimated at 16,000 of which Bihar alone claims 10,000. The iron ore mining industry is mainly located in Bihar, Mayurbhanj, Keonjhar and Mysore. The biggest iron ore mine in Asia is located at Noamundi and is owned by the well known Tata Iron & Steel Company. There are two main categories of workers: Cutters and Loaders. Normal hours of work are 8 for company labour but under contractors it is sometimes as high as 12 hours.

Plantations

A remarkable feature of the plantation labour is that while the employers are well-organised and powerful, the workers are unorganised and educationally backward. Until recently, there was only one union of garden labourers in the whole of Assam, the important tea growing State.

Plantations fall into two widely separated groups, those in North India and those in the South. The entire area under the plantation group, namely, tea, coffee and rubber amounts to 11,91,788 acres, giving employment to 11,80,391 persons. While North India grows only tea, the South has all the three products-tea coffee and rubber.

The tea industry is the biggest plantation employer in India and provides employment to 9,83,476 workers. Coffee and rubber estates employ about 1,52,000 and 45,000 workers respectively. Unlike other organised industries, plantations employ a large number of women in Assam.

Since 1931 when the Royal Commission's Report on Labour was published there has been a noticeable improvement in the labour conditions obtaining in plantations. Housing, medical facilities and water-supply have improved substantially, though no virtual improvement in education and organisation of labour has taken place. Progress has been least marked in coffee and rubber estates. Tea estates offer higher wages, better housing conditions and more generous schemes of welfare. The Planters have given employment to lakhs of aboriginal peoples and have improved their standard of living to some extent.

Dockyards and Ports

India is geographically well situated to become a maritime power. With a long coast line, she bids fair to become the nerve of sea-borne trade in the East. The important dockyard centres are Bombay, Calcutta, Cochin and Visakhapatnam. Bombay has six important dockyards and Calcutta has got ten. The nature of work in a dockyard is such that it calls for the service of every description—mechanics and other skilled workers, semi-skilled workers as well as unskilled men.

The important categories of workers are fitters, turners, carpenters, boiler makers, rivetters, black-smiths, copper-smiths, tin-smiths, moulders and painters among skilled workers and holders, hammer men, *khalasis* and other semi-skilled and unskilled workers. Aged men as well as women and children are not usually found amongst the dockyard labour. A large proportion of dockyard workers is skilled but there is no standardisation of wages and occupation in the industry. There are about 45,000 dockyard workers in India, apart from contract labour. Working conditions are generally satisfactory. The labour in the dockyard is well organised and has powerful unions.

Out of some 30 ports in India, Calcutta, Bombay, Madras, Cochin and Visakhapatnam may be registered as the major ones. These ports employ more than 60,000 workers including those employed by stevedores and contractors. The Port Trusts in Bombay, Calcutta, Madras, Visakhapatnam and Cochin roughly employ 17,000; 24,000; 6,000; 2,500 and 2,000 workers respectively.

Railways

The first railway constructed more than 85 years ago was a modest project of only 21 miles. Formerly there were three classes of Railways—Class I, Class II and Class III. They roughly employed 9,00,000, 23,000 and 8,500 workers respectively. These classifications have now been done away with under the Zonal Scheme and the total number of workers employed in all the Railways is about 9,40,000.

Numerous are the problems which affect railway labour in India. Each railway has its own peculiar features which affect conditions of labour employed by it. Among these may be mentioned " the length of railway, the territory through which it passes, the climatic, ethnological and other features peculiar to those territories, the social, economic and educational progress made by the people living therein, the scope such progress affords for the working of railway labour and the other avenues of employment open to labour". Being largely a Government undertaking the various railway administrations in India have shown great interest in the working and living conditions of their personnel.

Ships

The bulk of the Indian seafarers is drawn from the two maritime States—West Bengal and Bombay—and from Assam. No reliable statistics are available regarding the number of seafarers in India and the average daily employment on sea. Prof. B. P. Adarkar and Dr. Laura Bodmer who made some enquiries in this respect in 1946 estimated that the number of seamen available for employment was nearly 3,00,000 while the number actually employed was about 50,000. Only about 15 per cent of Indian seafarers work on board foreign vessels, mostly British. Conditions of employment of Indian seafarers in the past have not compared well with those of Western seafarers but with the adoption of the "equal pay for equal work" formula at the 28th (Maritime) Session of the International Labour Conference held in Seattle in June 1946, the Indian seafarers are finding employment on much better conditions.

Until the year 1944 the welfare of merchant seamen both Indian and non-Indian—was undertaken exclusively by voluntary organisations. In the year 1944, the Government of India took over the responsibility for organising and financing welfare schemes for the merchant navy seamen on adequate and permanent basis without entirely relying on charitable organisations. In March 1945 a Directorate of Seamen's Welfare was created under the then Commerce Ministry of the Government of India to look after the merchant navy seafarers of all nationalities in India. The Directorate is doing very useful work.

Trams and Buses

The principal towns having tramways are Calcutta, Bombay, Madras and Delhi. According to the results of enquiries made in 1946 by the Labour Bureau of the Government of India, the tramways in Calcutta, Bombay and Madras employed about 12,000 workers. The Labour Investigation Committee estimated that about 90,000 workers were employed in bus service.

A large majority of tramway workers are permanent, enjoying the benefits of holidays with pay, provident fund, graded promotion etc. In the case of buses, on the other hand, labour turnover and absenteeism are high. There is no graded or time scale promotion.

Municipal Labour

Municipal labour is well organised. In most of the centres the workers have a registered and recognised trade union. As a general rule, municipal workers are better off than those engaged in private industry in regard to hours of work, security of tenure, leave and pension. Calcutta, Bombay, Kanpur, Nagpur and Madras are the important municipalities in India employing among themselves about 47,000 persons.

Working conditions in municipal workshops are generally satisfactory and the provisions of the Factories Act are strictly observed. A large number of municipal workers, particularly in the conservancy and sewage departments lack education and stand in need of special protection and welfare facilities.

It will be observed from the foregoing statement of facts that conditions of labour and working standards vary from industry to industry. In some, they are highly developed, while in others, they leave much to be desired. Lately, there has been a mighty awakening among the working classes and with the backing of a sympathetic State policy, pledged to ensure to them a fair deal, they are fast coming into their own. Keenly conscious of its rights, though not yet quite so of its limitations, Indian labour is passing through a phase of silent revolution. Although the evolving of a uniform standard of working conditions in all industries still presents serious difficulties due to a variety of factors, conditions in one act and react on the other, producing a general upward trend of labour standards.

CHAPTER VII

EXISTING HOUSING CONDITIONS (RURAL-URBAN)

Existing conditions are, generally speaking, extremely unsatisfactory in rural and urban areas. The growth of housing accommodation in the country has not kept pace with the increase in population and over-crowding is a common feature, particularly in the towns and cities. In addition, the requirements of sound hygienic construction have largely been neglected while the state of insanitation that exists in towns and in the country-side helps to reduce still further the value of the living conditions for the maintenance of the health of its inmates. Proper housing has a profound influence on the health of the people. Specific reference may be made to three groups of diseases, namely, tuberculosis, venereal diseases and bowel complaints such as dysentry, worms and typhoid, the incidence and spread of which are profoundly affected by the housing conditions of a community.

Rural Housing

In Uttar Pradesh, no attempt has so far been made to control rural housing. The rural type of house consists of a courtyard which may be entered from it. There are generally no windows. The material used for construction is mud with a thatched or occasionally tiled roof. A separate latrine for a house is rare. Food is usually prepared and eaten in the courtyard, though occasionally a room may be set aside as kitchen. Cattle, goats and other domestic animals share the available living space in the house with human beings. In the Punjab no provisions exist in the District Boards Act to regulate the construction of buildings in rural areas. In the rural areas of Bengal, houses are generally built with mud walls or occasionally with bamboo matting. Windows are provided but they are insufficient in size. Latrines are rarely found. A common feature in this State is the *doba* or tank attached to each house or a group of two or three houses. The villages are scattered over a wide area and communication between houses is often very difficult. Rural housing conditions in Bombay are also very primitive and the conditions of sanitation that prevail are quite unsatisfactory.

Urban Housing.

The unbelievable overcrowding and appalling conditions of sanitation in most of our industrial towns are responsible for the instability of labour in the towns and its low efficiency. In some of the industrial areas where factories have been established at some distance from the towns, the problem of housing and sanitation is comparatively simple. The labourers are often housed in the neighbouring village dwellings that take the form of single-storey 'Lines' erected by the employer, who can acquire the necessary land without much difficulty. The second stage of development and congestion is typified by such cities as Madras, Kanpur, Nagpur, Ahmedabad and in a very large proportion by industrial areas round Calcutta. In these areas land is far cheaper than in Bombay and Calcutta proper and accommodation usually consists of single-storey huts in groups known as *bastis* erected by persons other than the owners of mills and rented to mill-hands on fairly reasonable terms. In some cases, as at Kanpur, Calcutta and Ahmedabad, the more enlightened factory owners have found it advisable to supply housing accommodation to the employees in the hope of commanding the pick of the labour market, especially in the case of such fluid force as that on which the textile factories rely. The conditions of housing in Ahmedabad appear to be worse than in any other industrial centre in India. However, the Municipality has undertaken to construct model dwellings for workers and the question is also being tackled on co-operatives lines. In practically every industrial centre the evil of overcrowding has been allowed to grow no control having been exercised over the selection of sites for industrial development.

This has naturally led to a shocking state of affairs. The majority of the working classes are housed in *chawls* or tenements which consist usually of single rooms, sometimes of double rooms or *gallas*, but never of more than two rooms. The *chawls* have for their object the housing—one is almost tempted to use the expression 'warehousing' of large number of the labouring classes in as cheap a manner as possible.

The vast majority of the working class families in Bombay (more than 70 per cent) live in single rooms. The average number of persons per room in the case of working class quarters is 4.03. These figures stand in striking contrast to those of London, where only 6 per cent of the total population live in one-room tenements with an average of 1.9 persons per room. The practice of sub-letting is common among industrial workers in Bombay, which causes further overcrowding. The overcrowding in certain parts of Howrah, for instance, is probably unequalled in any other industrial centre in India.

In Uttar Pradesh plans for the construction of houses in urban areas need not be approved by the Health Department of the municipality concerned. That department is responsible only for the location and specification of wells and sanitary conveniences. The State Government has issued model byelaws laying down standards regarding open spaces, light, ventilation and sanitary equipments.

But these are, as a rule, not enforced by the municipal boards. Health departments have no legal powers to prevent the use of houses unfit for human habitation nor are they empowered to inspect the existing dwellings with regard to space, lighting, ventilation and sanitary arrangements. It would, therefore, seem that the authority primarily concerned with promotion of the public health has been excluded from exercising that supervision which is essential to ensure the maintenance of satisfactory standards. In Orissa, the Municipal Acts do not provide for the framing of building byelaws. Building plans are examined by the public health and engineering departments of municipalities where these exist. But the recommendations of these offices are, it is understood, generally ignored. In Bihar, of a total of 57 municipalities, 33 have adopted the model buidling byelaws which have been framed by the State Government but 24 have so far taken no steps to enforce them and as far as we are aware, nothing has been done to rectify this negligence of a public duty. Here also, health officers have no powers for controlling the use of houses unfit for human habitation and for inspecting existing buildings as regards their sanitary condition. In the Punjab nearly all local bodies have adopted approved building byelaws but their observance is far from satisfactory owing to the lack of suitable supervisory staff. In Madras a housing survey recently carried out in Madura city revealed that 1,900 houses were overcrowded and that 2,500 were one-roomed tenements harbouring ten to fifteen families in each. In Coimbatore alone the population has increased by 170 per cent during the past half a century, housing accommodation has grown during the same period to the extent of only 20 per cent. The consequent overcrowding on the available housing accommodation can well be imagined. In West Bengal the building bye-laws are applicable only in some municipalities and that even in these their enforcement leaves much to be desired.

To sum up, in rural areas there has been no planning and no control of housing. In municipal areas legal provision exists for enforcing desirable standards of housing but these powers are not being used satisfactorily by the municipal commissioners concerned. The health department, which is intimately concerned with the maintenance of certain minimum hygienic standards, has not, generally speaking, been permitted in the past to exercise adequate control over either existing housing or new construction.

In addition to these grave defects in the enforcement of the law relating to housing, the growth of population has far outstripped the development of new housing accommodation, the consequent deficiency having produced acute conditions in some of the larger urban centres.

CHAPTER VIII

EVILS OF BAD HOUSING

Good houses mean the possibility of home life, happiness and health ; bad houses spell squalor, drink, diseases, immorality, crime, and in the end demand hospitals, prisons and asylums in which we seek to hide away the human derelicts of society that are largely the results of society's own neglect. Insufficient and bad housing is also one of the factors responsible for industrial unrest. All these evils are present in varying degrees in big cities. One of the greatest evils is the heavy infant mortality in the slum areas in big towns. The rate of mortality varies inversely with the number of rooms in the dwelling-place. For instance, in 1936, the percentage of deaths of infants in one-roomed tenements was 78·3. Lastly, the appalling conditions of *chawl* life and the absence of privacy have also a deterrent effect on those who wish to bring their families with them to the towns and have thus a very unsettling effect on the stability and efficiency of labour.

If the present day industrial worker in India is physically inefficient and unhealthy, the intolerable housing conditions are in no mean degree responsible for it. Housing and health are interconnected and they both influence industrial efficiency. The overcrowding of people in dark, ill-ventilated quarters in industrial cities is also an important contributory cause of tuberculosis. The unhealthy and unattractive housing conditions force the workers to leave their families in the villages and stay alone in the cities. This leads to a great disparity in the ratio between the two sexes and the consequent evils of promiscuity, prostitution and venereal disease, spreading first in the cities and later in the villages where the workers migrate. Overcrowded tenements have a cramping effect upon the physical and mental development of workers and their families. They do not make proper provision for the separation of the sexes which according to accepted civilised standards, is essential to decency. No attempt at raising the standard of living of the industrial worker can be successful without an early solution of the housing problem. When a factory is started in an urban area, the usual tendency on the part of employer is to leave the unskilled employees to their own resources as regards housing accommodation, while an attempt is made to house only the semi-skilled workers if there is any difficulty in their case. If, on the other hand, an employer establishes his concern in a rural or semi-urban area, he takes some care to see that his workers are housed, of course with the exception of such men as can afford to come every day from the neighbourhood villages.

Congestion and Tuberculosis

The contact of the East with the West has caused great social, economic, industrial and moral upheavals, as seen in the growth of towns and cities, the expansion of trade and commerce, the depopulation of villages, decay of home industries, migration into towns, high rents and dear food, overcrowding and insanitation, poverty, want, intemperance and degeneration. The result has been an insufficiency of light and fresh air, of food and accommodation, of rest and repose of mind, which have lowered the vital powers of the people and widely opened the door to tuberculosis. When it once gets hold of a person, it invariably ends in a slow and tortuous death. Tuberculosis like poverty, intemperance and unemployment, is more or less a product of modern industrialism. In fact it is involved in the social, economic and industrial life of the people.

Although deprecating the theory that open air is a cure for tuberculosis, Dr. Francis Potinger, one of the greatest tuberculosis experts of the present time, observes "The danger of bacterial contamination is much greater in stagnant air than in live air. In the confined air of houses bacteria live for a prolonged period, while in the open air, if it has wind movement and direct light, they are destroyed much quicker. It is wellknown that patients occupying a small space in crowded and poorly-ventilated rooms have little chance of overcoming tuberculosis. They fail to obtain the stimulating benefit of open air, and consequently the functional capacity of their body cells is low."

High rents in the cities compel the poorer people to crowd in small, ill-ventilated houses. Moreover, there are very few open spaces in the cities and more houses are crammed together in a small area of land in the cities than in the villages. In short, the towns generally suffer both from congestion and congested housing, which prevents even the free passage of air and sunshine—the two great healing forces of nature. Besides sanitary conditions in the cities being poor, we find the cities returning very high death-rates from tuberculosis.

In India especially, where towns have grown up without any check or hindrance, conditions are naturally worse. The sanitary standard as regards conservancy, drainage, disposal of sewage, a clean water-supply and good housing is very low. Overcrowding in principal towns and cities like Ahmedabad, Bombay etc., is so great and the house rent is so high, that even some of the middle classes are glad to live in cheap lodgings and tenement blocks.

Whereas the mortality from most of the other diseases has been showing a more or less uniform tendency to decline, however slowly, the death-rate from tuberculosis has been showing large increases.

The incidence of this fell disease falls mainly on those in the prime of their life, and more especially on girls and young women. Many victims fall in the height of their manhood or womanhood. One of the prime causes of tuberculosis is bad housing. In the case of females owing to the *purdah* system, it is not merely bad housing; it is more or less strict seclusion in the innermost rooms of insanitary houses. It is difficult to secure absolute privacy in narrow streets and *gullies* without light and air. The other great factor in the case of females is early marriage, which subjects immature girls to the strain of repeated pregnancies and prolonged periods of lactation.

Tuberculosis mortality seems to move onwards, like the hands of a clock, with the pressure of house accommodation. The disease is more common among the population living in huts than among those living in well-built houses and there is a definite relation between density, uncleanliness and want of fresh air and tuberculosis.

Industrialism and Tuberculosis

We might mention that industrialism promotes tuberculosis in other ways also. Fatigue is an important factor in every disease. Still, a humid condition of the atmosphere itself favours tuberculosis, but it affects the tired and the worried man most readily. The dark and dingy rooms, void of all open space, and the stinking atmosphere, surcharged with dirt and squalor, which is common in the average labourer's dwelling in Indian cities, offer a fertile field for the spread of tuberculosis. But when such drab conditions are coupled with fatigue and worry, tuberculosis plays havoc.

The example of the West is a good object—lesson for us. Long and continuous hours of labour in the fibre-laden atmosphere of the textile mills impair the respiratory system very seriously. Fine filament particles found floating in the air in jute or cotton mills, gain entrance into the lungs and induce chronic irritation and predisposition to germ infection. The inhalation of mineral dust raised in factories and mines gives rise to metallic poisoning. Moreover, industries are generally carried out in closed places where hot steam is constantly present and therefore the workers are exposed to the sudden changes of temperature in going in and out of the factories, which weakens their lungs. Accordingly, we find tuberculosis associated more with the cotton and jute industry than with others. An average cotton mill in India is not equipped with all the modern devices to clear and renovate the still and suffocating atmosphere of the spinning, weaving and other rooms by means of exhaust fans, etc. A man unused to the atmosphere will feel uneasy and suffocated within an hour in such a mill. Indian workmen have to spend long hours every day in such rooms; so much so, that in the latter part of the day a labourer can be seen covered with a thin layer of cotton all over. To add to this, he has to put up with the most unwholesome surroundings in the *chawls*, where he passes the night. There is no wonder, therefore, that the closely built *chawls* of Bombay, the rows of underground cells in Ahmedabad, the inner *bastis* and *zenanas* of Calcutta, Lucknow, Kanpur and Howrah, the crowded hovels of the jute mill villages, the filthy *dhowras* of the coal-mines and the dingy huts of the industrial towns in Madras have all become regular nests of tuberculosis and other respiratory diseases.

Infant Mortality

It is generally recognised that "infant mortality" is the most sensitive index we possess of social welfare and of sanitary administration.

In no sphere have the effects of congestion been more marked than on the life and well-being of the infants of the country. The welfare of the infants is always the prime duty of the State, because on them rests not only the future prosperity of a nation, but also its very existence. The growing congestion in our industrial towns is one of the main causes of this extravagant waste of human life and energy.

Taking the case of Bombay, it is seen from the vital statistics of the city (1944-45) that the infant mortality rate is still 203 per mill as against 167, the average for the country as a whole and 46,56,57 and 56 of New Zealand, the U. S. A., Australia and England and Wales respectively in 1940. Nearly 27.6 per cent of the total mortality in the city is among children under 10. There may be causes other than bad housing such as malnutrition, inherited disease, etc., which contribute to the high infant mortality and death rate. It has been found that nearly 70 per cent of the infants under one year that die annually belong to these one-room tenements. The environmental, human, sanitary and health conditions in these one-room tenements, and particularly the slums are such that there is no wonder that very heavy mortality and morbidity occur in these tenements, and one has to remember that there are no alleviating features in the city as are to be found in the country, *viz.*, plentiful sunlight and air and vast open spaces as well as the open air life of the people. Nearby these tenements and in the slum areas especially, it is even difficult for the growing children to find any available open space where they can play at ease or rest for the major part of the day. They have, therefore, to run about in the narrow lanes or keep indoors most of the time in nauseating conditions.

A high percentage of deaths in infants under one week indicates exhaustion and weakness in the mother and unsatisfactory conditions attending child birth and that under one month indicates low vitality in the infant over and above the other causes. Impure air and dirty surroundings are chiefly responsible for deaths between one and three months, while malnutrition, bad water, carelessness and crammed atmosphere are generally responsible for infantile deaths over three months.

Overcrowded conditions and insanitary surroundings are bound to affect the delicate nerves of the babies and the frail mothers. The result is that the babies are weak and sickly when they are born and lack the vitality to stand the stuffy atmosphere of damp and dreary rooms, impervious alike to fresh air and sunshine.

To sum up, the outstanding causes of high death-rate among children are: environmental—such as polluted air, congestion of population and insanitary surroundings; personal—consisting in ignorance, carelessness and dirty habits; industrial—connected with overstrain, exhaustion and occupational diseases; and lastly, poverty—compelling the labourers to live on insufficient and unwholesome food and clothing, and encouraging the mother to start work too soon after confinement and the consequent drugging and insufficient care of the child.

The same effects are corroborated by an analysis of infantile deaths at different age-periods. This debility, premature birth and respiratory diseases cover in themselves almost three-fourths of the total infantile deaths in industrial cities. Debility, premature birth and similar wasteful diseases are in a high degree connected with antenatal influences, while respiratory diseases and lung troubles are closely connected with imprudent exposure and insufficient clothing.

In England particularly, and in Europe and America in general, town-planning and sustained welfare work, coupled with improved sanitation and strict supervision of slum dwellings and other condemned houses, have reduced infant mortality to very low figures. It is deplorable to find that conditions in India are improving very slowly, if at all. Overcrowding, again, brings about mental depression and impaired metabolism, which, in turn, react upon health and lead to impaired efficiency, unemployment and poverty. All this leads not only to a physical waste of energy and general enervation, but also to a low standard of health and low resisting power, which play directly into the hands of immorality and disease. Thus the vicious circle continues. More often than not intoxication and other evils add to their resistible strength and sweep of the vicious circle, and aggravate the effects of poverty and overcrowding.

CHAPTER IX

HOUSING AND HEALTH

The Housing question, as we know it today, is largely a product of the industrial development which commenced in this country over half a century ago. In those days nobody foresaw what would be the result of the crowding of dwellings in towns or of the depletion of population and wealth from the rural areas. This was also the case in England and America.

It is doubtful whether it is wise to impute blame to the thinkers or legislators of those days for not pointing out more clearly what would occur, or for not taking steps to prevent what has actually happened. All of us can find wise men who prophesy correctly, yet it would have been impossible to convince the mass of the people in those days of the effects which were going to follow. May we not even today have precisely similar problems coming up for decision—problems in which the future has to be outlined and that future is extraordinarily dim ? It is unwise and ungenerous, then, to blame the distant past for what we have around us today. Rather it is important for us to recognise what is bad and to use our every effort to remedy it as soon as possible.

Bearing in mind that what we suffer from in bad housing is the result of want of foresight or knowledge, it is necessary, in attempting to put forward a policy, to satisfy ourselves, that it is not a retrograde policy, and it behoves us to use every means in our power to ensure that we advocate at least the minimum requirements of healthy human life.

What has housing to do with health ? It seems important first of all to consider what relation really exists between these two important problems of human living.

Mr. Edith Elmer Wood, one of the most distinguished pioneer protagonists of better housing in the United States, has answered this question by analogy.

The Bureau of Animal Industry in the Department of Agriculture issues a long series of farmer's bulletins on the housing of live-stock —dairy cattle, beef cattle, horses, sheep, hogs and poultry. It comes out roundly with delightfully dogmatic statements, such as : " Dryness, good ventilation and freedom from drafts are the first requisites of buildings for sheep." " If little pigs are to get the right kind of a start in life, they must have plenty of sunshine." "Growing chicks and laying hens need comfortable homes that are dry and roomy with plenty of fresh air and sunlight. It never pays to overcrowd them?'. Fortunate farm animals! No one writes doctors' theses to prove that there is no casual relation between their health and their housing.

It has so far been impossible to demonstrate by exact statistical procedure what proportion of the high death rates which characterise the slums may be due to the physical characteristics of the slums themselves, what proportion is due to other aspects of the poverty of their inhabitants and what proportion is the result of inherent physiological and psychical handicaps of the slum dweller himself. In the absence of such data, we may profitably turn to the testimony of that rare commodity which we ironically call 'common' sense.

The Committee on the Hygiene of Housing of the American Public Health Association, in its "Basic Principles of Healthful Housing," has listed thirty specific characteristics of housing whose direct influence upon health has not been successfully challenged.

One of the perfectly marvellous facts which emerge from a study of human life is its capacity for adapting itself to extraordinarily adverse conditions. But for this adaptability many of the families which live in the crowded parts of our slums would have been exterminated long ago. Human life is also to adapt itself even to the adverse conditions of the Arctic or Antarctic zones and of the tropics; but it is doubtful whether either of these extremes does as much damage to human life as is produced by bad housing; and all that is associated with it, in our towns.

We have, unfortunately, only imperfect method of measuring the harm done by such influence as bad housing. The death-rate is a crude foot-rule, the sickness-rate is so incomplete as to be unusable in most cases, criminal statistics are not very direct in their bearing on the question, life-tables have yet to be worked out to show that slum dwellers live under extraordinary handicaps, and nearly every other criterion is liable to such variation as to be of very limited value. But while this is so, there is such a mass of evidence already accumulated of the evil results of life under unwholesome conditions that no one will attempt to refute it.

Is it possible to doubt that rat-ridden tenements breed endemic typhus, that mosquito-breeding pools near unscreened dwellings cause malaria; that insanitary privies, unlighted, shared toilets, polluted wells, and connections between sewage and water supply system promote intestinal disease; that room overcrowding facilitates the transmission of diphtheria and scarlet fever and meningitis and pneumonia?

If you take the employee who works in a dusty, ill-lighted factory all day and lives and sleeps in an ill-ventilated, ill-lighted and perhaps damp house and is ignorant of the kinds of food he ought to buy, it is almost certain that you will get in him and his family a high incidence of disease. The rural labourer, too, who because of his poor pay has poor food, with long hours of work, and often has to pass his nights in a damp, ill-ventilated or unventilated sleeping-room, is marked out for ill-health, disease, inefficiency in his work and early death.

Health means more than just staying alive. Health means vigour and efficiency and satisfaction in living. The primary purpose of the home is shelter against the elements and the provision of an inner environment in which man can function to better advantage. The shack which has no heat in winter and the tenement which has no cross-ventilation in summer are not compatible with health. Nor is the dwelling with no sunlight by day and no adequate illumination by night ; nor the dwelling where elevated rail-roads or automobile horns shatter the repose of the sleeping hours.

Finally, we must take into account the demands of emotional as well as of physiological health. The home is a work place where some sixty hours of labour must be performed on the average every week. If conditions are not such as to facilitate performance of household tasks, fatigue results, as surely as in any factory workroom. Some opportunity for privacy—"a room of one's own" or its nearest possible equivalent—is an essential need for emotional health; and on the other hand, opportunities for normal exercise of the social functions are equally necessary.

To a very considerable extent there is absolute agreement as to the minimum standard required for a dwelling-house so far as accommodation, arrangement and structure are concerned, but is only within very recent years that it has been realised that something more than well-planned bricks and mortar is required. The nervous strain of living in too cramped quarters is an enemy of healthy family life and cannot be ignored. Rooms must be large enough for both the furniture they are to contain (which is so often of a massive nature) and for the people who are to use them. Moreover, the reduction in space below a certain limit greatly increases the work of running the house and keeping it clean. It is only a few years ago that the value of the town planning was first emphasised as one of the essential adjuncts to reasonably good housing. Scarcely any great social problem has been more earnestly considered than this and there is perhaps none in which more progress has been made in so short a time.

The fundamental problem of housing is to provide a dwelling that shall be warm in winter, cool in summer and well ventilated; in short, an environment that will be optimum for the functional efficiency of the human animal which is essentially a metabolic internal-combustion engine, and which like all internal combustion engines functions best in an environment that facilitates the convenient and easy loss of the heat necessarily produced in the release of energy. We need a housing environment that will give us a moving current of air, that is neither too dry nor too wet; neither too hot nor too cold.

Bad housing is but one component of a vicious circle of which the other components are drink, poverty, vice, dirtiness carelessness and ignorance. And bad housing to change to the metaphor, is the link of the chain which may most easily, and with the most permanent benefits, be broken. This, therefore, is the most important of all the links for the social reformer to deal with.

But why has there been so much delay in grappling with a problem which is of such vital importance to the nation? The answer is to be found in the many and difficult economic questions which enter into it. A full description of all these questions would be out of place but it is obvious that without reference to these a very important side of the problem would be ignored.

Largely, then the bad housing of today is due to the fact that people have been unable to pay for wholesome houses with wholesome surroundings, and when we consider the future it must be from the point of view that never again must the labourer be allowed to suit the house to his wage, but rather the house must be suited to the minimum requirements of human life, and we must see to it that the wage is so raised that these requirements may be fulfilled.

If there is one thing more important than another in housing it is that human life demands at least a minimum standard of accommodation, of quality and of environment. Bad housing is profoundly detrimental to health; and the existence of the slum is a health problem of outstanding significance. What can we do about it?

From the standpoint of traditional public health practice, the answer is to enforce the laws now on our statute books with regard to unsafe and insanitary dwellings. There is ancient precedent for the exercise of such authority. At Pompeli in the year 10 B.C., even for such a necessary public work as the city wall, built only " to the height of the titles", the City Council paid 3,000 sesterces in compensation to owners of dwellings whose light was affected thereby. Some 800 years later a poor widow complained to the Byzantine Emperor, Theophilus, that the new palace of his brother-in-law, Petronas, had illegally darkened her house "so as to render it almost uninhabitable". The Emperor ordered redress and when his order was disobeyed, he caused the new building to be demolished and Petronas to be flogged.

Similarly, in the reign of Queen Elizabeth I, two landlords who had built and subdivided a tenement in Hog Lane for the use of poor tenants were fined and committed to the Fleet Prison. Indigent tenants occupying the substandard dwellings were specifically permitted to remain in them without paying rent and on the departure of such tenants the buildings were to be torn down.

For centuries, then, a few exceptionally bad examples of insanitary housing have been eliminated by the process of condemnation but the total of progress accomplished has been infinitesimal in its results. The reason is extremely simple. It is quite useless to demolish substandard dwellings without providing good dwellings for their evicted populations. If all the unsafe and insanitary dwellings in any city were condemned at once, a considerable proportion of the population would be camping in the streets. The provision of decent living quarters for the lower economic group at rents which that group can afford to pay is the only practical answer to the housing problem.

This is the answer which has been found by the nations of Western Europe—by England and Holland and Sweden and Denmark—for the last quarter of a century. It is the answer U. S. A. reached, beginning with the purely federal policy of the Public Works Administration and now carried forward in the decentralized programme of the United States Housing Authority.

Today in India lack of medical care, defective nutrition, insanitary housing, social insecurity are the major health problems. In U.S. A. and Europe, housing programmes have been initiated to eliminate the slum and give the under-privileged simple but decent and sanitary homes. It is our challenge to foster the great vision of " life, liberty and the pursuit of happiness", of equal opportunity of the good life for all, attained by the democratic process of mutual consent. It will not be easy. These problems are much more difficult than those which confronted public health in the past. The diphtheria germ had no friends ; but the insanitary tenement and the unrestricted competitive system in medicine have powerful allies. There are dark forces of selfishness in every soul. It has been well said, "There is a great deal of human nature in man."

The Hon'ble Rajkumari Amrit Kaur, Health Minister, while referring to the general question of health, said in Parliament on the 1st July, 1952: " Our problem is how to bring health to rural areas. I cannot have health unless there is food, unless there are communications, unless there is housing."

Human nature has resources of good as well as of evil. If we appeal to the forces of mutual goodwill, if we keep to the ideal of mutual service, if we recognise that individual life, liberty and happiness are attainable only through intelligent mutual co-operation, we can control the evils of poverty and we can fulfil our destiny as an independent Nation.

CHAPTER X

REMEDIAL MEASURES

Evils of bad housing have been given in Chapter No. VIII. Here it is proposed to give the various measures that have been and can be adopted to mitigate these evils.

Municipal sanitation

Local self-government was one of the prominent characteristics. of the ancient Indian polity. The problem of public welfare in the social, economic, political and religious spheres of life was the dominant activity of the *sabhas* or assemblies of religious spheres of life in mediaeval Indian cities. The zeal and enthusiasm with which they performed the task is rarely found in any official or semi-official bodies of the present day. These bodies looked after the conditions of local sanitation, water supply and public health among their numerous other socio-religious activities. The relics of these important and beneficial institutions can still be found in the *sabhas*, or *panchayats*, in the temple cities of Southern and Western India and to some extent even in the smaller villages. Unfortunately they have been superseded by a foreign system of municipal administration in a majority of our towns and cities.

Beginning of the present Municipal system

The beginning of modern municipal progress dates from 1850, when a large number of municipal councils were constituted in the different provinces (States) by an act of the Government of India. Local Acts have been enacted in almost every State and greater opportunities have gradually been afforded for popular control and administration. The inadequate finance and the extreme poverty of the people have stood in the way of many essential and urgent improvements in general sanitation, conservancy, water supply, lighting, etc. At present municipal councils exist in almost every important town with extensive powers and responsibilities. Unfortunately they have seldom undertaken any systematic and comprehensive development schemes or embarked upon a bold policy of slum clearance and sanitary improvements. The unregulated and unsystematic growth of our towns is, in no small degree, responsible for the disorder and confusion which they exhibit today ; while this haphazard growth is itself the result of the apathy of municipal and local governments in the past. In fact the municipalities have failed to prevent the growing squalor and confusion in many an industrial town today.

In every field of municipal activity we meet with the same tale of inadequate and inefficient administration. While there has been a demand, encouraging in itself, for the introduction of modern sanitary and lighting improvements, all important schemes have ultimately to face the question of finance. Few of them are self-supporting in the sense that they can look forward to a future of development on modern lines without assistance from Government. The problems of disease, water-supply, conservancy and education call for a vigorous policy of improvement but municipal administration cannot do much due to inadequacy of the financial resources.

Defects of water-supply and conservancy

Mortality in the slum areas of an industrial town is far heavier than in the town as a whole. The insufficiency of water-supply, the inadequacy and inefficiency of the sewage and drainage systems, the dearth of latrines and urinals and the dirty state of conservancy —all preventible causes are the main causes of the high death rate in our industrial towns. The ignorance of people as regards the laws of sanitation and hygiene, their dirty and unclean habits and extreme poverty have also contributed to a high rate of mortality. The density of population and the over-crowding in rooms and tenements lead to want of sufficient air and light for the inmates and makes most of these defects inevitable.

Contrast with conditions in Europe

In England and other countries, the agitation for the removal of the few single roomed tenements and back to back houses that still exist is being carried on by the social reformers and municipal councillors. In India such conditions even today are the common features of the city life. In Germany also the cities and local governments have been extremely active in constructing houses, largely on their own initiative from the earliest times; while Italy, France, Belgium, etc., have thorough going municipal regulations in respect of housing and public health.

The question of housing has yet to be considered by the municipalities of India, while the administration of public health leaves much to be desired. It is common to find 'nalas' or open drains, full of stagnant water and containing lots of greenish decomposing solid deposits as a result of the sweeper's neglect. The '*moris*' are always allowed to remain in the most neglected condition, while underground drains not infrequently burst open and spread the most abominable odours all around. Open drains of the most obnoxious type run the entire length of the principal streets, immediately under the entrance of the dwelling houses.

The shortage of latrines

Accumulation of faecal matter, dust, dirt and refuse near the privies, on account of the limited number of W. Cs.—hardly one for 50 people—and the absence of proper cleanliness are the common scenes in the labour *bastis.* In many cases there are wells and water taps within a yard of private and sewage pipes. Evidently water passing through such vicinity is contaminated and rendered unwholesome for drinking purposes, and yet there are frequently no regulations to prevent these things.

No attention is paid to the poorer quarters of a town. As the sullage carts which are used for carting away the night-soil are rickety, portions of the faecal matter and dirty water are left on the spot and stream on the way, thus making the whole place unbearably stinking. The streets and bye-lanes stream over with nightsoil and urine, present an unsightly appearance if seen in the morning and yet there are the places where young urchins play about and inhale the deadly poison.

In places where there are no drains the whole problem is the collection and disposal of household and public sullage water. In many cases water is found over-flowing on the roads.

Conservancy and the primitive methods for disposal of rubbish require early improvement. Rubbish is ill-thrown, ill-collected ill-removed, ill-dumped and ill-dressed with the result that it adds myriads of germs along with the dust to the already otherwise polluted atmosphere, especially of a congested area.

Difficulties of water supply

The inadequate supply of water is another problem for the municipalities, particularly those in the mofussil towns which cannot undertake the expensive luxury of huge water-works. In some States, the problem is really very acute. The *kutcha* well, which is so common in the suburban and mofussil municipalities in Bengal is the chief source of water, both for drinking and other domestic purposes. The possibilities of the pollution of water in these wells are very great, particularly when they are within easy reach of *kutcha* privies and cesspools. The bigger municipalities on the other hand, which maintain water works and filter tanks are finding it increasingly difficult to meet the growing demand for water and accordingly starve the drainage system of its necessary requirements of water for proper cleanliness, which in its turn gets blocked and creates fresh source of mischief. One of the chief causes of the shortage of water is the enormous quantity of waste.

In short, the problems of overcrowding, congestion and insanitary housing are acute in almost every industrial and commercial town in India. The partial efforts and limited powers and funds of the municipalities led to the adoption of the policy of 'slum-patching'. Lack of bold and clear cut policy of the municipalities has made the position worse. Most of the poor people live in *chawls* and *bastis*, where every inch of ground space is utilised for building purposes, without paying any heed to lighting, ventilation and sanitation.

The following remedial measures are suggested:—

(a) Improvement of poorer quarters

Some of the municipalities have been doing highly useful work in the sphere of public health and the general improvement of the town under their sway. The municipal corporations of Bombay and Calcutta have carried out large schemes of town expansion with marked improvement in water supply, sanitation and drainage and even of slum clearance. While greater attention was devoted to the improvement of richer parts, no held was given for a long time to the poorer quarters, for an even and harmonious development of the town. It is needless to point out that works of public utility like drainage, sewage, water-supply, etc., should be spread over for an even and harmonious development of the town. In fact, the poorer quarters which naturally present a state of worse squalor and dirt, should obtain precedence in any scheme of development.

(b) Improvement and enforcement of Bye-laws

The improvement of housing conditions is the primary task of the municipalities. It is for the municipality to consolidate and harmonise their powers and responsibilities in the sphere of public health and sanitation. They should lay down bye-laws and regulations in respect of housing and sanitation. It should be made obligatory on the part of the municipalities to carry out the necessary minimum of sanitary improvements. The municipalities, moreover, should raise the standard of public health generally, and enforce the observance of the building bye-laws regarding lighting, ventilation and sanitation.

(c) Slum clearance and town expansion

Side by side with the slum demolition and the clearance of congested and unhealthy areas the municipalities must carry on schemes of developing new areas suitable for poor men's quarters in order to avoid overcrowding in other slum areas. All local bodies, and those in the growing mill and mining towns particularly should also formulate model plans for the improvement, expansion and extension of town areas, with lay-out plans for factories, houses, markets, schools, hospitals and other public buildings, roads, streets, parks, open spaces, etc. The chaotic growth of mills and factories in the very heart of the towns should be strictly prohibited.

(d) Sanitary squads and health visitors

Last but not the least the municipalities should try to engender the habits of cleanliness and sanitary living among the inhabitants by propaganda work and by organising Health Weeks regularly. In the sphere of hygiene much depends on the voluntary efforts of each householder. Each individual in every household should be called upon to contribute his share to the general cleaning up. Even in poverty, sympathy, guidance and instruction by health visitors can effect immense improvements in the houses of the poor.

(e) Propaganda work

Lastly the municipalities should undertake propaganda work. The education of the masses should be taken in hand in order to awaken a sense of responsibility in them and ideas of practical sanitary principles.

CHAPTER XI

THE HOUSING PROBLEM AND APPROACH TO ITS SOLUTION

Significance of housing

Housing means the provision of comfortable shelter and such surroundings and services as would keep the worker fit and cheerful for all the days of the year. In addition to the provision of pleasant and comfortable shelters, it includes the creation of new building sites in well laid-out areas as well as the improvement of existing localities. This means the inclusion of proper arrangement for water supply, drainage, roads. lighting, means of communication and civil centres required for medical relief, education, sport, recreation, administration. shopping and the like.

Food. clothing and shelter are the essential requirements of human beings. Housing is the primary need of a human family in civilised life. It constitutes the most important part of the physical environment. which continuously influences man's health and well-being.

There is abundant evidence in ancient Indian literature, in the remains of old structures and in the archaeological excavations to show that the art and the technique of the house building and of planning villages and cities had developed to a high degree in this country. Naturally the houses, villages and towns in the past bore the impress of the religious, cultural, political and sociological conditions then prevailing. Unfortunately, at a certain stage in the history of India, sciences and arts including those of Housing and Town Planning came to a standstill ; things began to deteriorate and today the housing conditions in our villages and towns are very unsatisfactory.

Rural housing

In rural India although air and light are freely available people do not take sufficient advantage of them. They live in dark congested areas and overcrowded. Such conditions are attributable to ignorance, poverty, sense of insecurity and age-old habits. There has been no serious attempt for proper water supply to villages. Villages have neither the guidance nor the means for proper drainage and disposal of refuse and for want of this they have to remain content with living in insanitary and almost primitive conditions and lose the advantage that may be obtained from use of refuse and night soil as manure.

The problem of Rural Housing is different from that of Urban Housing. The question of land, however, and its availability at cheap rates arises in both cases. In rural areas any attempt at improving the housing conditions is doomed to be a failure if it is not accompanied by education of villagers. Propaganda emphasising the four-fold aspects (1) good house with clean and cheerful surroundings, (2) demonstration as to how to construct such houses, (3) methods and advantages of hygienic living and (4) advantages of co-operative work, is essential.

Urban industrial housing

Urban housing includes working class housing, middle class housing and upper class housing. Both the middle class and labour housing require State attention.

Housing problem in urban areas essentially differs from that in rural districts. Population in the latter is more or less immobile whereas that in the former is of a floating character. Cost of urban land is very high. Though the manufacturing, building materials and skilled labour are costly in the villages, those of local nature are cheap. Villagers have to remain idle for some months in the year and can, therefore, contribute their labour in the rural housing schemes. On the other hand, the town worker has to repeat the same mechanical operations from day to day and from morn to eve and that too indoors. He cannot be expected to give any labour contribution for his housing, because his spare time must be devoted to recuperation of the exhausted energy and strained nerves. Stabling of livestock, storage of field—produce and the like require a treatment which stands in marked contrast with that for industrial workers whose life—functions are amenable to distributive and concentrated treatment. These factors have to be taken into account in tackling the problem of housing.

As observed by the Bhore Committee, villages with their sparsely distributed population, with the simpler habits of their inhabitants, whose vocations are mainly confined to agriculture and cottage industries, present a less complicated problem than towns with their requirements based on industrial development and populations living under intensely congested conditions. Health, happiness, general manners and morals of the people in urban areas, to a large extent, are influenced by the conditions of housing. Death and morbidity in urban areas are directly affected for better or for worse by good or bad housing conditions. Overcrowding and slums contribute to crime and delinquency in society. The importance of good, adequate, commodious and sanitary housing in urban life cannot, therefore, be over emphasized.

One can get an idea of the unsatisfactory conditions of urban housing from the following:—

(*a*) Site:—

(*i*) Absence of zoning, (*ii*) lack of planning, (*iii*) inadequate control, (*iv*) insanitary areas (*v*) want of amenities and (*vi*) congestion.

(*b*) House:—

(*i*) Squatter type of huts, (*ii*) insanitary houses, (*iii*) sub-standard tenements, (*iv*) sub-division of tenements, (*v*) over-crowding and (*vi*) shortage.

There is an urgent need for immediate and extensive improvements. The difficulties, however, are not easy to overcome. Suffice here to mention a few of them: (1) Vested interests, (2) scarcity of building sites or township space, (3) want of proper and cheap transport, (4) ill-distribution of houses, (5) obsolescence, (6) low rent-paying capacity, (7) floating nature labour, (8) insecurity of employment, (9) family and non-family units, (10) numerical sex disparity (11) illiteracy, (12) property-sense, (13) profiteering, (14) high cost of site and house, (15) sociological complications, (16) peculiar trend of selectivity, (17) communalism (18) provincialism, (19) want of civic sense and (20) tightness of public finance. The main difficulty is poverty and the second is the prejudices and ignorance of the people.

There are two aspects of urban housing. First, improvement of inhabited areas and secondly development of new areas.

The conditions in the cities and industrial towns are worse. This is the result—first of the lack of interest shown by the State especially until recently and the industrialists in the proper housing of labour and secondly of the establishment of industries without any plan. Industries naturally attracted large number of labourers who, for want of proper housing, were obliged to live in *chawls*, mostly single room tenements, which are insanitary, badly built and very much overcrowded. The density of population in some of our industrial centres is very high.

Industrial housing is a triangular problem. First, it is a social problem—the problem of the slums. The slums are, in fact, the chief centres of overcrowding. What is called 'overcrowding' is usually measured by the number of persons to a room, and in such reckoning the dimensions of the room are of the utmost importance. The next point is the density of population. Density may be measured in three ways. The most common method is to take an area and divide the population by the surface and generally the computation is done in terms of so many persons per acre. There is a certain significance in such statistics, but they obviously bear no relationship to actual housing conditions. At a given place, people might be massed together with a small space and densely crowded under roofs, while a large area of unoccupied space outside would considerably reduce the nominal density. The second method is to divide the population by the number of houses. This method affords a more accurate picture of the living density. The third method is to divide the population by the number of rooms. This method is not so good as the second one, though better than the first. A combination of the last two methods would throw sufficient light on the problem of housing, but unfortunately no adequate statistics are available with regard to the number of houses, much less of rooms. It is, therefore, very difficult to tabulate the results. Nevertheless, it is an undisputed fact that the density of labour population in industrial centres like Kanpur, Bombay, Madras, Calcutta and Ahmedabad is extremely high. The *cheris* of Madras, the *ahatas* of Kanpur, the *bustees* of Calcutta and the *chawls* of Bombay and Ahmedabad outslum the slums of many other countries of the world.

It is estimated that in a town like Bombay alone 4,00,000 have no shelter other than foot-paths and that roughly half the population is without independent shelter of their own. This shows the staggering magnitude of the problem and is a challenge to the constructive ability and patriotism of the people who are above the poverty line.

The paucity of convenient sites, the fabulous increase in the cost of building materials and of labour, the inadequacy of transport to and from distant suburbs and, above all, the non-availability of sufficient funds have made the solution of this problem extraordinarily difficult. A crisis like this can be met only by the resolute and united effort of Government, employers, employees and co-operative societies.

The housing shortage as well as the unsatisfactory character of housing is most acute among low income groups. On account of overcrowding, the growth of multiple tenancy has extended to even middle income groups also. Overcrowding is particularly appalling in industrial areas. The single room serves as a living room, kitchen and bed room and added to all these, the number of families living in that is sometimes as many as three or more. Such areas are generally the starting points for the spread of epidemics and communicable diseases.

The poorest class of people either have no dwellings at all or live in slums, or hovels amidst disgraceful insanitary conditions. All over the world, there is theory about the menace of the slums and the need for their removal. Even in an advanced country like America they are talking of a fifth freedom—freedom from slums. Why are there slums ? Because people are too poor to own decent houses and land-lords will not provide them with houses at rents within their capacity. Slummy conditions are the result of other causes too, such as, want of education, over-crowding and bad planning or lack of planning. Essentially it is a direct consequence of poverty in our country.

Slum clearance, as such, is an easy job. It is not much of an engineering feat to pull down dilapidated or substandard shacks and to clear the insanitary surroundings. The real task is that of salvaging the human values which the slum represents. This entails considerable expenditure of money for provision of suitable dwellings for all the dishoused persons. The slum dweller cannot afford to pay for the better type of housing. His earning capacity is too low and, therefore, it is idle to expect a higher standard of living in his case.

This is a problem associated with industrial towns and is full of complications. The working class is naturally inclined to live somewhere near the industry in which it is employed. If they are to be persuaded to live far away from their place of work, adequate provision for cheap and convenient transport will have to be made. It is not generally desirable to house workmen far away from their place of work. But this ideal cannot be reached in case of old established industries in the neighbourhood of which new sites are not available. The other possible remedy is the provision of very tall buildings in such localities. Vertical development is a method employed in other countries with great success to relieve overcrowding. This kind of vertical development introduces its own problems such as pumping for water supply, special fire-fighting appliances, provision of lifts, etc., which tend to increase the rent of the tenements.

This will not, however, reduce the density though it will reduce over-crowding of rooms by reducing shortage and enable the replacement of sub-standard and insanitary houses by good ones. It would, therefore, be a wise policy to shift the industries if possible.

The problem could be tackled by industrial township system in which such industries as could be shifted wholesale will be removed to virgin area on the outskirts of the city and established with a proper layout and with margin for further expansion. After such removal is effected, there will be room for increased housing accommodation at the old site making both reduction in density and provision of good housing possible for the removed as well as the remaining industries.

It is obvious that open raw land can be acquired and developed and then given over as building plots at a profit while reverse will be the case where clearance of built-over portions is involved, though in particular cases even the latter can be made self-supporting by adopting a suitable technique. In any case, it is to be noted that sound financing necessitates the balancing of remunerative against unremunerative scheme as far as possible.

Prior to the first World War, most of the European countries enacted laws aimed at ensuring compliance with public health and sanitary principles. After the first War erection of new houses for war veterans was taken up by the belligerent countries. Various Housing and Town Planning Acts were passed in different countries. The construction by private persons was subsidised. The houses constructed were mostly for working class people. The ability of tenants to pay and the rate of rents prevailing before 1914 were the guiding factors in determining the rents. The government subsidy system guarantees the local authorities against half losses. Subsidies were also given to slum clearance schemes. Tremendous progress was made in certain countries. Still the problem of providing home for the low and middle income groups was not entirely solved.

It is easy to point out that with the prices ruling at present, it is impossible for these people to pay the economic rents of the houses to be constructed according to modern standards. The City Improvement Trust or the City Corporation will have to meet considerable deficits in undertaking housing schemes for the low income group, unless adequately subsidised by government. Small subsidies doled out as charities now and then will not solve the problem. Housing should be recognised as a public necessity like roads, water supply, drainage or medical facilities and minimum standards of housing for all families should be considered as important as the minimum standards of health and education. With this goal in view the housing programme has, therefore, to be considered in relation to the general scheme of planned economic policy of the country.

It will be interesting to quote the following from a magazine :—

> "For all nations combined, the last World War cost 2,000 billion rupees. For this sum every family in the world could have a new six room house and a car and every town of 5,000 a new hospital and a new High school. Are War-Lords sane?"

So, if there is a will, there will be a way to solve the housing problem too.

Housing requirements—how met

The need for housing is met by building houses of different types to suit individual tastes, requirements and purse. The essential qualities of a house are privacy, comfort, convenience, spaciousness, salubrity, aspect and prospect, cheerfulness and elegance. All the houses built do not possess these essential qualities. Most of them lack one or the other or most of these qualities; for apart from individual tastes and needs, it is the purse that often determines the type of house one can build. Most families in urban areas and even many in semi-urban areas are compelled to live in rented houses. And even many of those, who can afford to invest the necessary capital, find it more easy to buy a house than build one. Thus, house building in urban and semi-urban areas and the management of house property have formed a profitable investment for private enterprise. House development schemes have all along been sponsored to cater to the needs of the middle classes. The lower income groups or their needs have not exercised any considerable influence on these schemes. In fact, the term 'housing' in ordinary parlance, is seldom associated with the habitation of the poorer classes, even their hovels or huts. The poorer classes are generally left with the sites and allowed to shift for themselves in the matter of providing shelter. The capitalist would prefer to purchase a house site and lease it out in plots on high rents. Erection of houses for the poor would not give him the yield. The result is that there has been no homogeneous development of housing to cater to the needs or the capacity of all classes.

A problem of great magnitude

While there are no accurate statistics as to the shortage of houses for industrial labour, the detailed investigations carried out by a number of Commissions and Committees of Enquiry into living conditions of industrial labour reveal that overcrowding has been a chronic feature in working class areas. It would appear that even this has reached, of late, saturation point, with the result that in most industrial centres, the overflow of population has had to shift itself in most insanitary areas and put up houses or shacks built of old gunny bags and kerosene tins. A recent enquiry into working-class housing conditions in Bombay has shown that the average floor space per person is as little as 27 sq. ft.; even so, about a quarter of the city's population was unaccounted for in the matter of housing. This, when estimated in terms of houses, would approximately amount to an absolute shortage of over a lakh of houses. It is believed that the present shortage of houses for workers employed in large-scale industries is not less than a million. This estimate does not include the large number of workers employed in small establishments and undertakings as well as persons working on daily wages or in individual occupations.

The problem of providing suitable and adequate housing to the millions of our country is so vast that one doesn't know how and where to begin. The authors of Bombay Plan estimated a capital cost of Rs. 2,200 crores for the construction of new houses and reconstruction of substandard and old dwellings. They reckoned at the rate of 100 sq. ft. per head of population which is on the liberal side compared to standards adopted in other countries but they grossly underestimated the cost, in pricing a house of 500 sq. ft. at Rs. 400 in rural areas and Rs. 800 in urban areas. At the present cost of building materials and labour and on the present day standards, the total cost may wellnigh be Rs. 10,000 crores.

Generally there are two different aspects of the housing question :—

(1) Shortage of housing and (2) the unsatisfactory character of housing from the view point of hygiene and public health. The outstanding feature of housing shortage is that the number of dwellings available is definitely smaller than the number of families requiring them. This feature was noticeable in urban areas even during pre-war normal times. On account of the conditions created by the war, the housing shortage has become more acute. The important causes that have contributed to the acuteness of housing shortage in urban areas are as follows :—(1) The increase in the number of houses has at no time kept pace with the increase of population and especially so during the present quinquennium.

(2) Large number of people from villages have migrated and come to stay in towns in search of more attractive livelihood. Instability in the supply of essential commodities in village parts and hopes of getting better supplies in towns on account of wider spread and better controlled rationing have induced them to stay on in towns.

(3) Normal building activities have been practically suspended owing to the scarcity and abnormal increase in the cost of building materials and building labour on account of the conditions created by the war which still persist and the large increase in the cost of building sites also has been acting as a definite deterrent. There is shortage of building materials, iron, cement, etc.

(4) The number of Government offices have increased with their attendant increase in the number of employees, their families, dependents, etc.

(5) There has been an abnormal rush of student population to schools and colleges in the cities and towns in recent years.

(6) The present uneconomic wage structure in villages and the lure of town life with its attraction of better services in the matter of water-supply, medical relief, market facilities and better recreational opportunities such as public parks, cinemas and theatres, hotels and cafes, etc., keep back the people who have already migrated to towns from returning to their villages.

(7) As recognised by the Bhore Committee, the breaking down of the joint family system and families dividing into smaller units on marriage have also resulted in an increase in the demand for housing.

All these causes have increased overcrowding and the growth of slums.

Unsatisfactory Housing

The other aspect relates to the quality and utilisation of existing dwellings. Even during normal times the housing conditions did not in general satisfy the minimum standards regarding internal and external equipment, sanitary arrangements, density of occupation, etc. The increase in overcrowding has aggravated this unsatisfactory character of housing still further. Dwellings intended for single families are now shared by several and premises not intended for human habitation are used as dwellings.

The problem of Industrial Housing can be envisaged as consisting of three parts. How to catch up with the arrears of house building, how to prevent a recurrence of the evil by planning new constructions and how to demolish and replace the worked out and unhealthy parts of the towns. Other ingredients of the problem will be prescription of the standard space on accommodation which must be provided, calculated as for a social unit such as a family, or an individual citizen. Then the types of houses believed suitable for different purposes and the different classes of occupants intended to be accommodated should be indicated. Then there is the problem of decongestion or redistribution of population in large centres and of provision of utilities or services. The urgency of supplying the housing accommodation and maintaining it is also an important ingredient of the main problem. The import of materials required for house building especially those in short supply will also present an important problem.

There are four fundamental principles to be borne in mind in any attempt at tackling the problem. First, prevention is better than cure. Secondly, slums are as avoidable as any other recognised evil. Thirdly, slums are not entirely problems of humanitarianism. Fourthly, we must face all the facts involved in removing slums, above and below the surface and go about the job as unemotionally as a student working on a problem in Algebra. The eradication of slums and their replacement by civilized housing must be undertaken, whatever the cost, because such efforts tend to strengthen the fibre of the nation. We cannot consider slum clearance as an isolated problem. No doctor can discuss disease of the heat or of any other major organ without reference to the general state of health of the patient. Slum areas are indeed symptoms of a disorder and not a disease in themselves; therefore, our planning must touch deeper levels. We must find the causes under-lying the symptoms and study the mental habits which permit slum to develop. We must, if necessary, administer drastic remedies in larger doses, mere palliatives will do no good at all. Slums are open sores on the urban corpus. The causes of these open sores are many and varied. Some are obvious, while others are somewhat submerged. The submerged causes are related in a large degree to the economic, psychological or physical deficiencies of the slum dwellers and belong to the science of sociology and cannot be discussed in this chapter. But it is undisputed that they emphasise the need for establishing and implementing certain social standards for human environment.

It is imperative to improve the housing conditions in India immediately. The question of National Housing requires to be tackled on an all India basis. It will save repetition and overlapping and will secure advantages of co-ordinated efforts. It will further assure equitable standard of living to the workers in all the States of India. It was with this end in view that a conference of representatives of State Governments, employers and employees was convened by the Central Government in the last week of August, 1952. Details of the conference have been given in Part IV of the book.

Action taken by Government and Local Authorities

Details about the action taken from time to time will be given in the relevant chapter. Here suffice to say that administrative action has been only of an indicative character—mainly confined to ineffective legislation to provide for central requirements, safety of building and prevention of excessive rise in rents, the measures taken to procure the available houses and arrange to distribute them equitably. Houses are in such short supply that any attempt to distribute them cannot solve the problem. Supply seriously short of demand leads to black-marketing and illegal practices such as *Pugri* in Bombay, as also elsewhere. As to who is responsible for housing will be dealt with in a separate chapter.

PART II

Housing in Different States : Past, Present & Future

CHAPTER XII

ASSAM

In the Indian Union Assam is the most important plantation area covering 440,248 acres under tea, *i.e.*, nearly 53 per cent of the total acreage under tea, coffee and rubber. The daily average of persons employed, both permanent and temporary, on the tea gardens in 1942 was 521,667 which is 56 per cent of the total average employment in the chief plantation crops in India. Tea, in fact, is the chief and highly organised industry of Assam and the labour population in the tea gardens constitutes more than 10 per cent of the population in the State.

Housing in Plantations

Settled tea garden labour which forms about 80 per cent of the total labour force is provided with housing accommodation. The houses are either built in a line, each house having a small compound or two houses having a common compound. The houses are *kutcha*, semi-*pucca* and *pucca* and their number is 82,654, 30,567 and 13,280 respectively. Nearly 90 per cent of the houses in Assam are *kutcha* and in bad state of repairs, the average size of the house being 15′ × 12′. The houses provided are quite inadequate for a family. In most cases four or five members of a family stay in a single room house which is also used for cooking and sleeping. In many houses there is no plinth. While the *kutcha* houses provide sufficient ventilation, they provide poor protection against cold in winter. The *pucca* houses have windows. The houses are provided free of rent and repairs are done by labourers themselves with materials supplied by the planters. The most usual source of water supply is open surface wells, tanks and rivers. Nearly 90 per cent of the gardens have no latrines for the labourers. Very few bathing and washing places have been provided in spite of the Royal Commission's suggestions for a serious attempt in that direction. The situation remains unattended even today and no action has been taken to prepare type plans on the ground that no technical staff is available to prepare such plan. Lighting is by kerosene lamp and Labour Commission's recommendation to provide a few standard lamps in and around the housing area has not been implemented.

Government of India have also passed the Plantations Labour Act, 1951, Section 15 of which makes the necessary provision for housing of the plantation labour. Section 16 of the Act empowers the State Government to draw the necessary specifications, etc. of the houses for labour.

The shortage of houses in this State is due to lack of funds and shortage of building materials. Government of India, however, have agreed to give a loan of Rs. 10 lakhs and a proposal in regard to housing has been submitted to the Government of India for their approval.

Mineral Oil Industry

India gets its mineral oil from Digboi oil fields in Assam, which is the only source. The total number of employment in the Assam Oil Company was estimated to be 8640 in 1940. The Company houses 47 per cent of its employees in Digboi and 25 per cent in Tinsuki. No rent is charged and subletting is forbidden and does not occur. The company pays a house allowance of 10 per cent of basic wages to its employees, who cannot be provided with quarters. There is either water borne sanitation or septic tanks have been set up for the disposal of excreta in bucket latrines. Flush latrines are provided for all recently built quarters and are expected to be extended to all the housing areas.

CHAPTER XIII

BIHAR

With the acceleration of the pace of industrialisation in India there has been rapid influx of population in the industrial areas. While there were 35 cities in India with a population of more than one lakh in 1931, the number increased to 58 in 1941. The second World War raised the tempo of industrial activity to a great extent and the concentration of population in urban areas was further increased. Though Bihar is predominantly agricultural, like the rest of India, its unrivalled mineral resources have made it an important centre of a large number of organised industries, *viz.*, coal, iron-ore, copper, mica and limestone. The total number of people in mines and quarries in Bihar which come under the purview of the Indian Mines Act was 239,989 in 1945. The following table shows the number of workers as well as the output of different mining industries.

Name of mineral	Number of persons employed	Output in tons
Coal	190,393	16,589,996
China clay	3,236	26,968
Chromite	860	5,223
Copper-ore	3,359	329,325
Fireclay	480	17,111
Gold	157	...
Gravel	129	24,687
Iron-ore	6,883	1,046,900
Limestone	4,219	613,869
Manganese ore	131	2,174,
Mica	29,870	4,241
Sandstone	88	14,571
Slate	51	451
Steatite Stone	133	687
Total ...	239,989	

Factories

The most important industry of the State is iron and steel smelting which offers the largest employment in the State. Next comes sugar which, owing to the natural advantages for the cultivation of cane has been localised in the north of the Ganges. Besides having a large number of engineering establishments, it is an important centre of shellac and cement. There are also jute and cotton mills, rice, *dal*, oil and flour mills and paper and printing mills. The following table shows the number of factories and the average daily number of workers employed in 1946 in each of the major industry group:

Industry ...	Number of working factories	Average daily number of workers employed
Government and Local Fund Factories ...	51	21,399
All other Factories—		
A. Perennial:		
Textiles	14	8,543
Engineering	73	11,450
Minerals and Metals ...	13	40,170
Food, Drink and Tobacco	127	9,810
Wood, Stone and Glass ...	52	13,785
Others	79	10,940
B. Seasonal:		
Food, Drink and Tobacco ...	46	20,799
Others	21	2,094
All Industries ...	476	1,38,990

It will be seen from the above table that the total number of perennial factory workers in Bihar in 1946 was 1,16,097 while het number of workers in seasonal factories was 22,893.

The industries which are located away from towns and villages and where the supply of labour is not adequate to meet the demand, had to provide housing for their workers. Some provision for housing has been made in the coalfields of Jharia, Bokaro and Berno, Giridih and Karapura, the ore mines of Gua and Noamundi, the copper works of Moubhandar, the copper mines of Mosabani, steel works of Golmuri, the quarries of Boulia and Dumarkhar, the cement works at Japla and Dehri and the engineering works at Kumardhubi. The industries which are situated in or near towns have hardly done anything for their workers.

Like other States of India the condition of housing in Bihar is also appalling. The defects are congestion, insanitation, absence of light, inadequacy of water supply and other attendant evils. The following paragraph extracted from the Bihar Labour Enquiry Report, 1938, popularly known as Prasad Committee, will throw much light on the magnitude of the problem:—

> " While some housing is good, well laid out, and provided with light, water and sanitary facilities, a very large proportion is the merest pretence of housing, incredibly dark, damp, ill-ventilated, filthy, with no privacy or sanitation. Some of the huts are only leafy shelters and others are so low that one could only crawl in and out of them. Cooking and sleeping in the same room are common enough. The congestion in such huts is appalling. We found a room which was shared by a worker, his wife, two unmarried daughters and a son with his new bride. In a leaky hut, we were told, the inmates slept in shifts. Elsewhere we saw a child ill with pneumonia sleeping on a damp floor a few dry leaves serving as its bed. The heat in the houses with tin or corrugated iron sheet roofs becomes unbearable during summer while they are equally unable to keep the cold out during winter. Even *pucca* houses built back to back are oppressively hot for want of cross ventilation. Stagnant cesspools and open drains with foul smell are a common sight. These conditions call for immediate remedy."

The Committee (with the exception of one member) proposed that housing on an adequate scale should be a statutory obligation of the industry. But the extent to which an industry can be required to carry out the obligation will depend on its financial position. It was suggested by the Committee that the Government should assume power to enquire into the incidence and basis of the rents for workers' quarters wherever any serious grievance exists and to fix reasonable rents. The Committee further added that the workers should be encouraged to build their own houses and for this purpose loans on reasonable terms should be advanced to them. It was also recommended that the Government should lay down minimum standards in regard to accommodation, ventilation, water supply, sanitation, drainage and all the housing schemes should be on models approved by the Government.

Various other reports such as those of the Whitley Commission, Mica Enquiry Committee, etc., have adversely commented upon the existing housing condition of the industrial workers. The Bhore Committee went so far as to say that Provincial (State) Government have taken very little interest in the development of housing and providing working class with accommodation.

We shall now give a bird's eye view of the housing conditions prevalent in important industries of the State.

Housing in the coal-fields

Both from the point of view of the number of persons directly employed and the output, coal is by far the most important industry of the State. The collieries being situated in sparsely populated areas, the important labour had to be provided with housing in order to make them stabilised. The Mines Board of Health, Jharia have prescribed certain specifications in regard to the houses to be built by the employers. The workers' houses commonly known as 'dhowrahs' consist of a room and a verandah and a majority of these have been constructed back to back. The *dhowrahs* are of different types, such as country tile roof, Raniganj tile roof, arched roof, plastered flat roof straw thatched—and tin roof *dhowrahs*. Most of the tenements are built up of mud and bricks. In Giridih collieries the workers have to build their own houses, the house building materials such as bricks, bamboos, mud, tiles, etc., being supplied by the management. Nearly 85 per cent of the families are living in one roomed, 10 per cent in two roomed, 3 per cent in three roomed and 2 per cent in four roomed tenements. The proportion of workers housed in the Jharia coalfields by the several mines have varied between 5 and 100 per cent. The number of *dhowrahs* available in 1944 in Jharia area was 33,738 for a colliery population of 2,02,914 giving an average density of 6.0 per cent. The supply of water is inadequate and the sanitary arrangements are not satisfactory. Some of the large collieries such as Tatas at Digwadhi and at Jealgora have provided a kitchen and a bath place in the *dhowrahs*.

Iron Ore Industry

Bihar, the home of the mineral industries of India, is also the home of the iron ore mining industry, which is the backbone of the Indian iron and steel industry. All the iron ore mines in Bihar are situated side by side in the Singhbhum district and in the Mayurbhanj and Keonjhar States. The mine at Gua, which is owned by the Indian Iron and Steel Company, Ltd., Burnpur, is at a distance of 91 miles from Jamshedpur. Not far from Gua is the mine at Noamundi which is the biggest iron ore mine in the whole of Asia. This is owned by the Tata Iron and Steel Co. Ltd., (TISCO), Jamshedpur.

Housing has been provided by the Companies as well as by the contractors. At Gua, 100 per cent of the workers are housed by the Company, at Gorumahisani, 25 per cent of company labour and 90 per cent of contract labour is housed ; at Noamundi, 49 per cent of company labour and a small proportion of the contract labour, is accommodated. In Noamundi there are 458 quarters accommodating 622 workers out of a total strength of 1,271 workers. The quarters are of several types varying from Senior type to type E. The total number of quarters at Gorumahisani is 220.

The superior staff are accommodated in *pucca* houses with reinforced concrete roofing and *semi-pucca* houses with corrugated sheet roofing covered with country tiles. According to the type of quarters floors are cemented, brick-paved or left *kutcha*. The workers' dwellings measuring 10′×10′ are built in a line and are situated not very far from the mining faces. Quarters up to Type D have been provided with bath-rooms and there is sufficient ventilation. Filtered and chlorinated water for drinking purposes is supplied through pipe line to all houses of the superior staff as well as to coolie huttings. The coolie huttings quadrangle at Noamundi has been lighted electrically all round and electric street lighting has been provided up to the chowkidar huttings and to the power house. But in the coolie huttings themselves there is no electric lighting. For the better quarters, from Type A to Type D, privies are built inside the quarters themselves ; but for coolies' huttings latrines are provided separately for males and females in the vicinity of quarters. On the whole, quarters supplied by companies to workers at all mines are neat and clean, and the sanitary arrangements, especially at Noamundi and Gorumahisani are satisfactory. Market and Post Office facilities are also available near the workers' quarters. Workers are not, generally, encouraged to build houses on a long lease. The employers possess surface rights under the mining lease. Wherever necessary, they have also availed themselves of the Land Acquisition Act for housing purposes.

Contractors' labourers at Noamundi and Gorumahisani live partly in contractors' houses. The contractors' houses at Gorumahisani were tolerably good, being neat, clean and sanitary, with an adequate number of privies and water taps. But at Noamundi, the contractors' quarters were unfit for human habitation. Almost all the rooms were in a dilapidated condition and sanitary arrangements at both Noamundi and Gua left much to be desired. At Gorumahisani some 40 workers live in *kutcha* houses let out by private landlords. Nearly 53 per cent of the workers live in improvised thatched cottages at Gorumahisani and about 10 per cent at Noamundi.

Shellac Industry

Bihar is the principal shellac producing State in India. The important centre of the industry being Shalda Sub-division of the Manbhum district. The industry flourishes in various other places also in the districts of Ranchi, Palamau, the Santhal Parganas, Gaya and Singhbhum.

Workers employed in the shellac factories being local come from their homes in the locality. But some of the registered factories have constructed ' coolie lines' so as to stabilise labour. The rooms are constructed in two lines, back to back with brick walls and tiled roofs. The floors are *kutcha*. There are no bath rooms; water from wells is available nearby and ventilation is tolerable.

Paper Mills

Next to Titaghur Paper Mills in West Bengal comes the paper mills situated at Dalmianagar in the Shahbad district—one of the largest factories in the country. The factory is managed by the Rohtas Industries Ltd. The Management has housed 31 per cent of the workers in some 200 quarters of three different types: family quarters, bachelors' quarters and cooly quarters. The first type contains a room 13 ft. × 10 ft. a verandah, a kitchen, a water tap, a bath room, a latrine and an enclosed courtyard. Electric light is supplied free of charge. A bachelor's quarter contains one room 10 ft. × 10 ft., a kitchen a verandah, an enclosed courtyard and a latrine. The rent of a family quarter is Rs. 4 per month, that of a bachelor's quarter Rs. 2-8 per month and that of a cooly quarter Re. 1 per month. Workers who have not been provided with accommodation usually live in their own *kutcha* houses in the surrounding villages while a few live in rented quarters in the town paying a rent of about Rs. 3 per room.

Rice Mills

Bihar is the third largest rice-growing State in India, Bengal and Madras being the first and second respectively, and accounts for an annual out-turn of nearly 3 million tons of rice and a total area of 10 million acres under paddy. But most of the rice in the State is hand-pounded and only about 10 per cent milled. Though there are rice mills all over the State, the industry is mostly located in the northern districts and particularly in Darbhanga district, where there are 26 rice mills out of a total of 70 in the whole State. In Darbhanga district, Jayanagar alone has 12 mills.

The housing problem in rice mills is not very acute as most of the workers come from the neighbouring villages and are local. At Jayanagar only a few of the workers among the permanent staff who need accommodation, are given living space somewhere on the factory premises. Some of the managers and permanent employees have built their own houses, while watchmen and sepoys use some part of the factory premises for cooking and sleeping. In one factory permanent employees have been provided with rooms for cooking purposes. The rooms are brick-built and with thatched roofs. In Darbhanga, however, the management have constructed one-room tenements for the workers, with brick walls and thatched roofs. Out of the 11 rooms only 5 are used and the rest are lying vacant. No rent it charged.

Iron and Steel Industry

There is only one factory in Bihar, the Tata Iron and Steel

Company, the biggest production unit in the East and one of the biggest in the world. The total number of workers employed in the Jamshedpur Works is about 40,000.

The Tata Iron and Steel Company has constructed 8,428 quarters for workers as well as 293 bungalows for officers and supervisory staff. The Company quarters comprise several types. The rents charged vary between Re. 1-8 and Rs 5 per month for the quarters having a living room (with verandah and kitchen in some cases), Rs. 2-4 to Rs. 11 per month for quarters having verandah (front and/or rear) courtyard, etc., Rs. 6 to Rs. 21 for quarters having 2 living rooms, kitchen, verandah, front garden, etc. and Rs. 12-8 to Rs. 40 for quarters having 3 to 5 living rooms and kitchen, verandahs, garden space, etc. The conditions in regard to water supply, lighting, latrines and roads are satisfactory.

There are also about 3,000 houses built by the employees under the company's Building Loan Scheme. The Company grants house building loans at 3 per cent. In respect of *pucca* houses, the loans are advanced up to one half of the estimated cost on a mortgage basis, repayable within a maximum period of five years. For *kutcha* houses, a loan equal to four months' wages and realisable within 18 months of the completion of the building are given without bond.

Sugar Industry

Viewed in an all India perspective, Bihar is the second largest manufacturer of sugar, the first position being held by Uttar Pradesh. Bihar and U.P. together produce 81 per cent of the total output of the country. The two States have the advantage of compact sugar-cane areas and can spare an exportable surplus after meeting local demand. From the point of view of the number of workers directly employed, sugar industry has assumed much importance in the State.

The question of housing in sugar factories is not so important as in the case of other industries because of the fact that the labour is drawn from the adjoining villages. Many sugar factories have provided some housing for their workers but it is neither sufficient nor suitable in all cases. In Champaran, the managements have housed a substantial percentage of workers in rent-free quarters most of which are one room dwellings. There are some privately owned houses occupied by the workers. In regard to provision of amenities like verandahs, bathrooms, kitchens, water supply, light ventilation, etc., the employers' houses are much better than the privately owned houses. In Darbhanga considerable number of workers is housed in thatched huts which provide very poor shelter against sun and rain. The other kind of houses, generally single room tenements, are built of bamboo walls covered with mud plaster and thatched roofs. There are some *pucca* barracks to serve as family quarters mostly for the permanent employees in the factories. The provision of amenities was unsatisfactory in most of the cases.

The following statement shows the number of existing tenements according to the different types in various districts of the State :—

Name of district.	One room tenements	Two room tenements	Three room tenements	Larger tenements
1. Patna	246	60	34	...
2. Gaya	186	78	...	...
3. Shahbad ...	1,311	296	23	...
4. Saran	923	552	7	...
5. Champaran ...	876	180	...	...
6. Muzaffarpur ...	44	7	...	...
7. Darbhanga ...	197	59	5	...
8. Bhagalpur... ...	98	39	...	...
9. Purnea	439	132	...	...
10. Monghyr	26	11	...	...
11. Santhal Parganas...	44	1	3	...
12. Ranchi	156	738	...	...
13. Hazaribagh ...	199	...	...	...
14. Palamau	128	43	...	...
15. Manbhum ...	3,650	607	9	...
16. Singhbhum ...	3,078	9,173	920	95
...	11,599	11,976	1,001	95
Grand Total ...			24,671	
Percentage to total.	47	48	4	1

(The above figures relate only to the registered factories of Bihar.)

An abstract statement of number of houses built by employers and others for the workers of the registered factories of Bihar is given below :—

Total number of workers (in perennial)	1,22,703
(in seasonal)	20,153
Number of workers living in houses owned by them	39,661
Number of workers living in houses provided by employers	43,200
Number of workers living in houses owned by private landlords	39,842

Total number of houses provided by the employers	24,671
Number of houses worth retaining ...	10,372
Number of houses worth remodelling	5,852
Number of houses worth demolishing	5,667

It will therefore appear that—

(*a*) Total number of industrial houses worth living is	18,924
(*b*) Average number of workers per house is	1.8

The total number of houses built within the State of Bihar by employers under the Bihar Industrial Housing Scheme for the industrial workers of the registered factories is 359. The average cost for one unit of house consisting of one room tenement varies between Rs. 5,500 to Rs. 7,500. The same is the cost of one roomed tenement in Jamshedpur.

The major cause of the shortage of adequate houses is the general shyness among the employers in investing money for housing of their workers. The cost of construction of a house has gone high and the rent recovery from the workers' wages (10 per cent) is not economical ; as such it is not a profitable investment for an employer.

State Government schemes from time to time

In March, 1938, the Government of Bihar set up a Committee known as the Bihar Labour Enquiry Committee, under the chairmanship of Dr. Rajendra Prasad, for the purpose of conducting an enquiry into the conditions of industrial labour in the State and for making such recommendations as might appear practicable for the purpose of improving the level of wages and conditions of work etc., of industrial workers. The Committee submitted its report to Government in April, 1940. It was suggested by that Committee that housing on adequate scale should be a statutory obligation of the employers, but the extent to which an industry could be required to fulfil such obligation should be determined by the State Government after careful investigation into its financial condition. No action could be taken on that recommendation as the Congress Ministry had resigned by that time.

The Industrial Housing Sub-Committee appointed by the Government of Bihar, on the recommendation of the Bihar Central (Standing) Labour Advisory Board, submitted its first report on the 16th December, 1948, in which it recommended the setting up of an Industrial Houing Board for formulating certain schemes for housing industrial workers. The matter again came up before the Bihar

Central (Standing) Labour Advisory Board on the 11th February, 1950, and the Board asked the Industrial Housing Sub-Committee to re-examine the question further and make their specific recommendations. The Sub-Committee made their final recommendations on the 17th August, 1950, in which they recommended a scheme, which was in some respects different from the scheme sponsored by the Government of India. This recommendation was considered by the Bihar Central (Standing) Labour Advisory Board in September, 1950, and was adopted with slight modifications. The Board also recommended to the State Government the taking of immediate steps for implementing the scheme and the scheme was finally sanctioned by the State Government. Its main features are noted below:—

The scheme lays down that providing housing even to the lowest paid workers is mainly the responsibility of the employers and that the State Government could only help the employers by giving them aid in the form of loan and in the matter of acquisition of land. Annual maintenance as well as administration of the houses and of common services and amenities like water supply, electricity, etc., are to be the responsibility of the employers, subject to the direction and control of the State Government.

It was recommended that the scheme for the present would be applicable only to factories registered under the Factories Act, 1948.

The State Government might give loan to the employers to the extent of 50 per cent of the capital required for industrial housing and the loan should carry interest at 3 per cent per annum. The remaining 50 per cent of the capital should be provided for by the employers. In calculating the cost of the building for the purpose of this loan, the cost of construction together with the cost of provision of ancillary services and the cost of preparing the site would be taken into consideration but would be exclusive of the cost of land, which will be provided by the employers at their own expense.

It was provided that the amount granted as loan, together with interest thereon will be repaid by the employers in twentyfive annual instalments of equal amount on the dates fixed for such payment. In the event of default in the payment of any instalment, or any two consecutive instalments, as the State Government may decide, the entire amount of loan remaining unpaid plus the amount of interest accrued thereon shall immediately fall due and the same with interest at 6 per cent per annum on the defaulted amount of principal and interest from the date of default till realisation shall be recoverable from the properties mortgaged to the State Government for the loan or from the other assets of the borrower.

The repayment of the first instalment would commence not later than two years after the date of the advancement of the loan. Interest will, however, be charged from the date of the advancement of the loan.

The workers will have to pay 2½ per cent of the cost incurred in the construction of quarters and in provision of such amenities like water, drainage, sewerage, latrine, light, etc., where such amenities are provided for by the employers, as monthly rent for the quarters they occupy.

The scale of charges realisable for amenities of a municipal nature provided at the cost of the employers will be subject to the approval of the State Government. In no case, however, the amount of rent payable by a worker will exceed 10 per cent of his monthly wages. The term 'wages' shall be defined as in the Payment of Wages Act. For the purpose of determining the rent payable by the workers, only the cost of provision of ancillary services and the cost of construction of buildings will be taken into account and the cost of preparation of the site and cost of land will be excluded.

The management of the houses constructed under this scheme will rest with the employers, subject to the supervision-direction and control of the State Government, to be exercised through officers selected by them. The State Government, however, will have no control over the houses constructed under this scheme after the loan is repaid with interest by the employers.

In case of breach of any of the conditions of the loan, the State Government will have the right to take over the management of the buildings and of the ancillary services for such period as the Government may consider necessary. For such period, all differences between the receipt of revenue in shape of rent from the workers and amount of expenditure to be incurred on the maintenance and the management of the house and ancillary services will be recovered from the employers.

The property given as security for the loan will be kept mortgaged to the State Government till the loan is fully repaid with the interest provided that in case of large loans involving the construction of separate and distinct blocks of houses, the State Government may allow progressive release of some of the property as part of the loan is repaid.

In case of dispute arising out of the execution of the scheme, the matter will be submitted to, and be decided by, the arbitration of two arbitrators, of whom one shall be nominated by the borrower and the other by the State Government and the Chairman of the

Industrial Tribunal, Bihar, constituted under the Industrial Disputes Act, 1947, shall be the umpire.

Notwithstanding anything mentioned above, the State Government may refuse to accept the complete repayment of the loan before the expiry of the period of the loan.

The ir-reducible minimum requisite for a standard house will be as follows :—

(a) 2 rooms of 10′×12′ × 10′ each.
(b) 2 covered verandahs-one in front and the other in the back at least 7 ft. wide.
(c) A kitchen and a store room.
(d) A bathing cubicle screened off but with no roof.
(e) A courtyard.
(f) A latrine, preferably of the septic type.

Any other specification that may be laid down by the State Government from time to time will have to be followed. Planning and construction of the houses will be under the direction of the State Government and will be subjected to inspection by its officers.

Arrangements will be made for adequate and hygienic water supply as well as for electricity wherever possible. The sullage water drains should be *pucca* and covered, and, if possible, under the ground.

Ownership of the houses :—The ownership of the houses constructed under this scheme, after the redemption of the loan, will rest with the employer. It will rest with the State Government only until the loan is completely repaid.

The borrower will have to execute bonds and agreements in the prescribed form.

Actual action taken by Government

The State Government in the Labour Department have undertaken to execute the Bihar Industrial Housing Scheme for providing houses to the workers. Under this Scheme, Government have advanced a sum of Rs. 20 lakhs out of the sum of Rs. 25 lakhs earmarked as loans to some employers to build houses for their workers on the basis of 50°/₀ of the total capital cost. The loan will carry an interest at 3°/₀ per annum and will be repayable in 25 years. Under this scheme 400 houses have already been constructed. The balance was proposed to be paid during 1952-53, but in view of the latest scheme of subsidy and loan of the Government of India, it is felt that employers will not apply for any further loans under this scheme and would take advantage of the Government of India's latest scheme.

To encourage the employers to take advantage of the scheme, Government agreed to remit the payment of Stamp Duty by the employers in early stages and decided that to begin with for a period of three years Government would themselves pay the Stamp Duty for the execution of the documents and charge them to the scheme of Industrial Housing.

Two types of houses have been constructed. These are L4 and A4. The accommodation in these types of houses is as follows:—

L4 Type:

(*a*) 2 rooms—10′ × 12′ each.
(*b*) A kitchen with storage space for food and fuel, an independent bath room.
(*c*) A lavatory.
(*d*) Verandahs 6′ inside and 9-4½″ wide both in front and the back respectively, and a courtyard.

A4 Type:

(*a*) Two rooms one 12′ × 10′ and the other 12′ × 7′-9″.
(*b*) Front verandah 5′-0″ wide.
(*c*) A kitchen with storage space for food and fuel and independent bath room.
(*d*) A lavatory.
(*e*) A courtyard.

In addition to this, a sum of Rs. 5.66 lakhs has been paid to some employers out of the sum sanctioned by the Government of India. More funds are proposed to be sanctioned during the current financial year (1952-53.)

A provisional housing board has been set up and legislation for the formation of this board is under active consideration of the Government of Bihar. Industrial Housing Board Bill is likely to be introduced in the State Assembly. The aim is to provide 45,000 houses but it will depend upon finance and other circumstances though a beginning has been made. For the development of housing for workers in the coming five years, the Government of Bihar have a five year programme costing one crore of rupees which along with the contribution of the employers will work out to rupees two crores. The aim is to provide permanent structure of buildings, for the factories' whole life is estimated to be sufficiently long. Semi-permanent construction may also be encouraged in those factories which have a life comparatively smaller than that of the bigger factories and for the season workers who may occupy the houses for a short period.

The State Government have recently set up a Town Planning Department, which is in the form of a regional office, to advise the local authorities and the Government on matters relating to Housing and Town and Country Planning. The Department is charged to prepare schemes for local authorities when ordered by Government and also to execute schemes in certain areas.

Recently the State Government have also passed a legislation, "The Bihar Town Planning and Improvement Trust Act, 1951" which gives adequate planning powers and resources to local authorities to take up Town Planning work under Government guidance. As the Bihar Town Planning and Improvement Trust Act, 1951, has been passed by the State Legislature only recently no specific housing goals or programmes have yet been announced by various local authorities.

CHAPTER XIV

BOMBAY

In the chapter on the growth of towns in India mention has been made of the mill towns. It has been shown how the forces of industrialization and organisation resulted in the shift of population towards the industrial centres. The cotton industry also contributed to the rapid growth of a number of towns throughout the country. Along with the growth of the town the problem of housing went from bad to worse. In this respect Bombay has attracted attention from the very beginning. Much has been written about the houses of the Bombay labourers and though the worst is bad, there has been certain exaggeration too.

Conditions about 1916—1918

The Industrial Commission went into the then existing housing conditions of the workers. They found that the condition of housing in Bombay was pretty bad. The usual accommodation was back to back tenements (*chawls*) consisting of a two, three or four storeyed building. The rooms were ill-ventilated, insanitary, dark and overcrowded. Facilities of water supply, cleansing and sanitation were inadequate and unsatisfactory, latrine accommodation was also bad. The rents varied according to the value of the ground, which was between Rs. 5 and Rs. 30 a square yard.

The *chawls* of the worst type did not constitute more than ten per cent of the whole, although many of the remainder were distinctly insanitary. As regards the *chawls* built by the Municipality and the Improvement Trust, conditions there were different. There was more space between the buildings, there were more openings for light and ventilation, wider passages and a more liberal provision of windows. Sanitary and water arrangements were generally suitable, although not in all cases on a sufficient scale. But overcrowding continued to persist due to taking of lodgers by the labourers for adding to their income. Due to the practice of throwing rubbish from the upper floors courtyards were not at all clean. The Commission were of the opinion that the single storey line is, as a type, superior to the three or four-storeyed *chawls* and had no doubt that the ideal to be aimed at is a single storey, or at the most double storey, building with courtyards, or, if possible, double room units; and in any case ample space round the buildings.

Recommendations of the Industrial Commission

The Commission was of the opinion that the avoidance of future congestion and the amelioration of the existing state of affairs should be the guiding principles in framing the proposals in regard to Bombay housing. They considered that no industrial concerns should be started in the future, except in the north-east of the island of Bombay or in south-eastern Salsette, without the sanction of the Municipality, which should be withheld in cases where the location of the proposed industry was likely to produce congestion or was otherwise unsuitable; and that an adequate scheme of drainage and water supply should be put in hand to prepare the areas set aside for development, not only for industries but also for industrial housing.

The railway companies should locate their new shops at a reasonable distance from the city, even further afield than the industrial area proposed above and should provide housing for their labour in site. Housing of a suitable type should be provided and where practicable, including the electrification of suburban railways and the extension of the tramway system should be provided in order to induce the working population to seek accommodation in the new industrial suburb.

With regard to industries already located in the city the Commission recommended that programme of building together with a definite standard should be worked out and taken up at the expense of the local authorities. If the existing resources of these bodies, together with the assistance rendered by the Local Government proved insufficient, further taxation should be imposed in such a way as to fall mainly on the employers.

As regards responsibility for the financing of industrial housing in Bombay, the Commission was of the view that the largest share must fall on the Bombay Municipality and the Improvement Trust as the importance of Bombay, both as a city and as a port, warranted some measure of assistance from the Local Government.

After the World War I, the problem of housing of working class in the Bombay city became very acute and the Government of Bombay through its Development department built 207 new concrete *chawls* containing over 16,197 single roomed tenements in four different centres, 9472 at Worli, 3264 at Naigaum, 2543 at Delisle Road and 918 at Sewri. In the new *chawls* the spacing out of the blocks provided reasonable air and light requirements and the individual rooms give a sufficiency of space. The flush out latrines and the bathing place though not always adequate are such as can be easily maintained in a sanitary condition. All the *chawls* have been provided with roads, water, lighting and shops, whilst at Worli one whole floor has been converted into a market. Schools and dispensaries have also been established in each of the four *chawl* areas still all the 16,524 rooms have not been occupied since they were made available in March 1929. Additional objections, especially applicable to the Worli Scheme, are the lack of cheap transport to the mill areas, the inadequacy of markets and shops, defective medical facilities and the lack of police protection.

Conditions about 1930 and later

In spite of the various measures undertaken by the authorities no marked improvement could be achieved in regard to the enormous and complex problem of housing. The growth of industries brought thousands of people to the cities in search of employment and the increase in accommodation did not keep pace with the increase of population. The Royal Commission on Labour found the situation pretty bad. They considered the *chawl*—a tenement three-four storeys high with one family in each small room—detrimental to the health of the occupants. The entry of light and air was greatly restricted in these tenements and not only were the sanitary arrangements inadequate, but cleansing and sanitation also were badly neglected. However, because of their proximity to the mills they were invariably most crowded.

In 1937, Government appointed an Industrial Housing Committee on the recommendation of which they agreed to spend a total sum of Rs. 10.5 lakhs for the purpose of effecting certain structural alterations and improvements. Expenditure to the extent of Rs. 4.5 lakhs was incurred for this purpose in 1938 and, as a result of the alterations effected and the amenities provided, the tenements of the Development department began to attract tenants in larger numbers than before. Out of the 207 *chawls*, no less than 192 were occupied in 1939, and the monthly income from rent increased from Rs. 50,668 in 1937 to Rs. 69,751 in 1939. 13,000 tenements out of 16,000 are occupied in the *chawls* owned by Government, the population housed in the *chawls* being now well over 63,000 persons.

The tenements, as remodelled, are fairly well lighted and they contain suitable bathing places and latrines.

Despite the recommendations of the Royal Commission, no appreciable change could be made for the better in the matter of housing in Bombay. The report of the Rent Enquiry Committee pointed out that the supply of housing accommodation of one roomed and two roomed tenements for the working class did not keep pace with the demand, that rents continued to remain high and that the minimum facilities of water supply, cleansing and sanitation were deplorably inadequate.

The Textile Labour Enquiry Committee set up by the Government of Bombay just before the war had recommended that there should be provision for a minimum floor space of 40 sq. ft. per person excluding the kitchen while the Housing Panel of the Greater Bombay Scheme had indicated that each individual should have a floor space of at least 60 sq. ft. In industrial areas in Bombay about 23 per cent of the families stay in tenements which allow about 40 sq. ft. of floor space per individual. The following table gives details of estimated requirements for housing industrial workers at the three important centres in the State:—

Place	Total population according to 1947 (latest available figures).	Number of industrial workers according to Food department Report of 1948	Total estimated industrial population, *i.e.*, Column 3 x $\frac{3.96}{1.53}$ *(See below)	Estimated number of tenements normally required for industrial population on basis of 4 persons in a tenement.
Bombay City	3,158,837	3,28,859	8,51,164	2,12,786
Ahmedabad...	9,79,233	1,51,401	3,93,642	98,410
Sholapur ...	3,25,286	36,066	93,771	23,443

*(In the calculations given in the above table an average working class family was taken to consist of 3.96 persons including 1.53 earners).

The total demand for industrial housing in the two cities of Bombay and Ahmedabad is as large as about 96,000 tenements while the corresponding figure for the whole State is about 1,28,000 tenements. It will, therefore, be seen that on an average cost of Rs. 5,000 per tenement, industrial housing in the State alone would involve an expenditure of about Rs. 64 crores. The conditions of industrial housing in this State call for an early improvement especially because workers are unable to find the necessary finance for themselves.

In 1938, the Labour Office conducted an enquiry into working class housing and house rents in three important industrial centres *viz.*, Bombay, Ahmedabad and Sholapur. This was mainly to assist in the work of the Rent Enquiry Committee. The statistics collected in respect of 2,175 families in three working class majority wards in Bombay city indicated that 91.24 per cent lived in one roomed tenements, the average number of persons per such tenement being 3.84 and floor area per person worked out at 26.86 sq. ft. as against 103.23 sq. ft. per tenement as a whole.

Housing accommodation in Bombay as a whole

The following are available comparative details of the quantity and composition of housing accommodation in Bombay city :—

Year	Population	Housing Accommodation		
		One roomed tenement	Two roomed tenement	Larger tenement
1921	1,175,914	175,001	38,559	40,349
1931	1,161,383	...	...	...
1943	2,218,537	239,069	45,614	43,477
1944	2,340,386	247,258	49,632	38,674
1945	2,688,606	235,488	52,657	39,824
1946	2,774,054	237,901	52,069	40,540
1947	3,158,837	238,282	52,370	40,630
On 1st March 1949	3,200,000	239,860	54,594	41,620
On 31st March 1951	about 33 lakhs	246,610	56,460	42,493

Thus a 150 per cent increase in population during the last quarter of a century has been off-set by only a 35 per cent increase in the number of tenements. The Bombay census report of 1931 has pointed out " At least 36 per cent of the population of this city suffered from overcrowding. Of all tenements, 81 per cent are of one room—2,56,379 persons living in rooms occupied by six to nine each and 50,594 in rooms occupied by 20 or more persons in each."

In regard to the requirements of Bombay alone, the Hon'ble Minister in-charge of Housing also in one of his speeches in March, 1951, stated. " For example, in Bombay city alone, the population has soared up from about 12 lakhs in 1931 to nearly 33 lakhs today. There are, at present, four lakh tenements in the city sufficient to house about 20 lakhs of people in reasonable comfort. If the rest of the city's population is to be adequately housed, it would involve the construction of two and a half lakhs of tenements, calculating at five occupants per tenement. On the basis of an average cost of Rs. 5,000 per tenement, inclusive of cost of land, this would involve an immediate expenditure of Rs. 125 crores."

Over and above the acute shortage of housing in the city and dangerous overcrowding in one room tenements, there is another draw-back from which the city suffers, *viz.*, the very large extent of dark, ill-ventilated, badly built housing with appallingly squalid surroundings in various parts of the city. The Bombay Municipality has enumerated 86 slums, most of them being in four wards, *viz.*, B, C, D, and E. In a large number of these houses in slum areas, conditions that create slum lands strike the eye immediately one visits the areas. There are rooms so dark that even during the day the inmates cannot see each other in passages, or in the single living rooms, without the help of a light or fire. Fresh air is completely lacking. Ventilation is of the poorest standard imaginable. The single room serves as a living room, bed-room, sick-room, kitchen, dining room, etc., and to add to this the number of persons living in the single room ranges from 4 to 10. The sallow complexion, the emaciated body, the pale faces of the inmates immediately tell their tales. If further proof were needed, one has only to study the official vital statistics to understand the extent of the toll in human life taken by this ill-conceived housing, which is unfit for human habitation. It is tolerated because there is no alternative housing available; and the inmates would be on streets, if the tenements are declared and marked unfit for human habitation.

HOUSING PROVIDED BY DIFFERENT BODIES

Municipal Corporation Chawls

Only in Bombay and Ahmedabad the problem of industrial housing has attracted the attention of public authorities, the first move being in Bombay about thirty years ago. The Bombay City Improvement Trust constructed 2,045 tenements on behalf of four textile mills in the city under the City Improvement Trust Act (since replaced). This Act enabled the Trust to acquire land, build *chawls* and treat the expenditure thus incurred as loan repayable by the mills concerned in 30 annual instalments. For rehousing persons dishoused by the slum clearance operation the Trust also built 9,330 tenements and 2800 semi permanent sheds. About 20 per cent of these *chawls* and 35 per cent of the sheds are occupied by textile workers in the city. The monthly rent per tenement varies from Rs. 4-15 to Rs. 10-8 for the *chawls* and from Rs. 2-8 to Rs. 6 per month for the sheds. In addition to this the Bombay Municipality holds in the estates acquired by the old Improvement Trust, *chawls* consisting of some 5000 one room tenements, 25 per cent of which are reported to be occupied by the textile workers.

Port Trust Colonies

The Port Trust have provided housing accommodation for about 30 per cent of their workers. Two independent housing colonies have been established, one at the Antop village and the other at Wadi Bunder. The former comprises 494 residential units built in single storeyed two roomed cottages and each unit has a *chula* (fire place) and *nahani* (washing place). Of these, about 86 have also a covered verandah 4′ wide. The floor area of each unit is 180 sq. ft. Each room has generally one window and two doors. Ventilation and lighting are satisfactory. The average number of persons staying in each unit is about 8. Common bath rooms, latrines and washing places have been provided for each block of houses. The general sanitation is poor as open drains pass through the centre with houses on both sides. The rents are Rs. 3-4 for scavengers, Rs. 6 for engineering employees and Rs. 5 for railway employees per month. There is a railway station, a market and a post office near the colony The Port Trust has employed a Welfare Superintendent and a Sanitary Inspector to look after this colony. The distance from the colony to the work place is about 5 miles. The second housing colony at Wadi Bunder consists of seven *chawls*. This colony houses two types of workers (*a*) scavengers and sweepers and (*b*) other workers. There are 196 residential units for scavengers consisting of a single room and a common passage, while the general body of workers are housed in four five storyed *chawls* built of concrete, consisting of about 200 residential units of the double row type with a central corridor 8′ wide. All these quarters are single room tenements with a floor area of about 120 sq. ft. each. The average number of persons occupying a room is sometimes as high as 12. Congestion is still more intensified by the habit of some families of taking in paying-guests. Tap water is available only on the ground floor. Only 8 latrines and 8 bathrooms are provided for each floor. There is a railway station close by. The Trust has built about 525 single, double and three roomed quarters at various places in the Port area, Carnac Bunder and Wadala.

Textile Mill Chawls

21 mills in Bombay, 28 in Ahmedabad and 5 in Sholapur have provided accommodation for their workers in 4,301, 2,749 and 1,547 tenements respectively. About 75—80 per cent of these tenements, however, are single-room tenements and the rest double roomed. Some of the mills at other places, such as Viramgam, Nadia, Baroach, Surat, Gokak, etc., have also provided tenements for their workers. Most of these tenements are, as usual, single roomed.

Bombay Government's schemes and programmes

We shall now try to give a description of the homes for the people that the Government of Bombay has planned and the measures it has taken and proposes to take to implement its housing programme. In April, 1944 the Government of Bombay enacted the Bombay Non-Urban Labour Housing Sanitation and Provision Shops Act, 1944, which empowers the Government to effectively control housing of labour and sanitation in areas outside municipal and cantonment limits and to pass orders to compel employers to provide reasonable sanitary amenities and open provision shops for their labour force in such areas. The State Government is empowered to make regulations which may include, *inter alia* the provision of ventilation and lighting of quarters, proper drainage and sanitary conveniences, adequate and wholesome water supply, grain and grocery shops, medical aid and first aid attention, segregation of persons suffering from contagious disease. The Act, in short, endeavours to protect the health of labour force working in non-urban areas under conditions similar to those prevailing in localities inhabited by industrial workers in towns.

Bombay Provincial Housing Board

In order to meet the problem of housing shortage in this State, particularly in industrial centres like Bombay, Ahmedabad and other cities, Government set up in 1947, the Bombay Provincial Housing Board. It comprised of the Ministers for Labour, Public Works, Finance and Local Self-Government. The functions of the Board were to formulate a long range housing policy and undertaking an immediate programme of encouraging and facilitating private enterprise of house building and also of building houses through the agency of the Government and local bodies. A Provincial Housing Advisory Committee, with its sub-committees, namely, the Finance Sub-Committee, the Land Sub-Committee and the Construction Sub-Committee, was set up to advise the Board in its work.

Housing was included in Government's post-war reconstruction programme and a grant of Rs. 4 crores was sanctioned for it. The programme was, however, restricted only to large industrial centres of Bombay, the Bombay suburban district, Ahmedabad, Hubli Poona and Sholapur and then Surat was also added. The target was fixed at 1,25,000 tenements for industrial workers and low income groups which were to be completed in 5 years by the Government, Government aided and private agencies. The share of the Government was to be 15,000 tenements at a cost of Rs. 7½ crores. This sum was to be contributed by the State Government, Central Government and the employers in equal proportion of 2½ crores. The hopes of getting any help from the employers had however to be abandoned. The Government, therefore, planned with its own programme of Rs. 6 crores made up of Rs. 4 crores out of the post war reconstruction funds and Rs. 2 crores out of the Government of India loan promised by the Central Government. Out of this sum, an amount of Rs. ½ crore was laid aside for loans to co-operative housing societies. A programme of direct construction by the State Government estimated to cost Rs. 5½ crores was then drawn up.

The broad features of the programme were the abolition of one room tenements, construction of dormitories and hostels for single persons and tenements to suit all sizes of families and fixing rents to suit the pockets of the low income groups. The different types of tenements proposed to be erected consisted of the following:—

(A) Hostels and dormitories having cubicles and rooms. The size of the cubicle was to be 11′×8′ and the area of room in dormitories about 600 sq. ft. accommodating 10 persons in each. The standard rent was put at Rs. 4 for cubicle and Rs. 2-8 per head for dormitories.

(B) Tenements for small families having an area of 195 sq. ft. consisting of a living room of 135 sq. ft. and a kitchen of 60 sq. ft., the standard rent being Rs. 8 per family.

(C) Tenements for medium size families having an area of 320 sq. ft. consisting of two living rooms—120 and 100 sq. ft., the standard rent being Rs. 10 per family.

(D) Tenements for larger families—the area of each tenement was to consist of 444 sq. ft. containing two living rooms of 168 sq. ft. each and a kitchen of 108 sq. ft., the standard rent was put at Rs. 11 per family.

The Government intended to construct 15,000 tenements the percentage of A, B, C and D type being 10,40, 40 and 10 respectively.

It was considered that the housing of the workers is the responsibility of the employers and the Government, therefore, proposed to impose a levy on them. It was proposed that the levy should be at the rate of (*a*) Rs. 2 per employee in the case of an industrial or commercial establishment employing more than 100 workers (*b*) Rs. 1-8-0 per month in the case of an establishment employing between 50 and 100 workers. Besides construction of houses the Government would encourage and facilitate the private construction of houses of suitable standards.

To implement the Government's policy, three plots in Bombay, three in Ahmedabad and a plot belonging to Government in Sholapur were selected and projects prepared. Besides the Government's projects, some of the local bodies have the execution of some other schemes. The Ahmedabad municipality has a scheme for construction of 792 houses at a cost of rupees twenty one lakhs.

Establishment of Statutory Housing Board

With a view to accelerating the housing programme by handing it over to a statutory body possessing the necessary powers the Government passed, in 1948, the Bombay Housing Board Act, 1948 and under Section 39 thereof, set up the Bombay Housing Board on January, 15, 1949. The Board consisted of the three Ministers as before. The Joint Secretary to Government, Political and Services Department and the Housing Commissioner, Bombay, were to be the Secretaries to the Board. In addition to these, an eminent architect, Shri Mhatre, a businessman, Shri Podar, a Trade Union leader, Shri Abid Ali and an Engineer, Shri Daftary, were also members of the Board. The Board has a full-fledged housing organisation under which functions a Housing Commissioner, assisted by Assistant Housing Commissioners, Executive Engineers and other staff. The Board is maintaining its separate accounts from the 1st June, 1949. The expenditure of about Rs. 114 lakhs incurred on housing before the 30th May, 1949, was declared as a loan to the Board.

The object of the Government in setting up the Board was the provision of increased housing accommodation conforming to approved standards for such classes of the population as are in need of such accommodation, either through the agency of Government or local bodies or by promotion of co-operative housing or by encouragement of private enterprise in building.

The main functions of the Board were:—

(*a*) unification, simplification and standardisation of building materials;

(*b*) encouraging pre-fabrication and mass production of house components;

(*c*) organising or undertaking the production of building materials for the housing schemes;

(*d*) encouraging research for discovering cheap building materials and evolving new methods of economic construction and

(*e*) securing a steady and sufficient supply of workmen trained in the work of construction of buildings.

It will not be out of place to mention the action taken by the Board in pursuance of the duties assigned to them.

The Board gave attention to unification, simplification and standardisation of building materials by giving contract for standardisation of doors and windows to M/s. Jayanand Khira and Company.

The Board also (i) standardised various sizes of scantlings and planks required in house construction.

(*ii*) Substituted wooden cupboards by standardised steel cupboards in some of the colonies.

(*iii*) Considered the question of substituting lime for cement for building foundations and walls at Sholapur and Hubli.

(*iv*) Considered the question of wood work used for buildings with a view to economise in the cost of construction. Hard *sal* wood was used in place of teak wood for both roof and joinery, *i.e.*, doors and windows for the Board's projects at Sholapur, Hubli, Goregaon, Ghatkopar and other places.

(*v*) Examined the question of prefabricated houses but found that they were costlier than houses of similar dimensions built from traditional materials and therefore not economical.

(*vi*) Considered the mass production of components for houses constructed by the Board.

(*vii*) Considered the question of organising and undertaking the production of building materials required for the housing schemes and wanted to produce sand and bricks. The Board considered the purchase of a dredger for improving the quality of sand etc. but the matter was not pursued for want of funds.

(*viii*) It encouraged research for discovering cheap building materials and evolving new methods of economic construction.

The Board had paid some attention to this and whenever anybody applied for research, the same was considered. The Board was apprised early in 1949 about the question of research and the work done by the Research Sub-Committees. It was generally agreed that the research work pertaining to development of alternative cheap building materials to replace steel and cement etc. to develop new design methods to cheapen the cost of construction should be entrusted to the College of Engineering, Poona.

The Board went into the question of improving the sanitation of various colonies by replacing basket type of privies by aqua privies and has constructed many aqua privies in the colonies constructed by it to eliminate the cost of scavenging staff and to ensure satisfactory sanitation of the colonies. These have proved very successful.

Planning and Research

The Board also took up the question of proper planning of houses to be built. All the planning work was transferred from various sub-offices to the head office. Several plans have been worked out and used for constructing houses for the Rehabilitation department and the Government housing scheme.

The suggestion made by Government in this connection has been noted by the Board. It also attached great importance to the utility of building research in the country as a whole and thought Central Government should actively undertake and finance such work. The Government of India has set up a Building Research Station at Roorkee and that body will organise and coordinate its efforts with those of the various States carrying out similar work. The Government of Bombay sanctioned sometime ago a scheme and directed building research work to be done by the College of Engineering, Poona.

The Board also considered the question of securing steady and sufficient supply of workmen trained in the work of construction of buildings.

From the above, it will be seen that alround effort has been made by the Board in the right direction, in pursuance of the requirements laid down under Section 39 of the Bombay Housing Board Act.

In regard to the various measures for solving the problem of housing in Bombay, the Hon'ble Minister for Public Works and Housing broadcasting on 5th February, 1951 said:—"The Government tried to solve it in three ways (*i*) by making building materials easily available, (*ii*) by undertaking a programme of construction for industrial workers and low income groups and (*iii*) by assisting co-operative housing societies to provide housing for the middle classes."

Constructions undertaken by the Housing Board

As mentioned earlier, a target of 1,25,000 tenements in five years was proposed and assistance to outside agencies such as local bodies, co-operative housing societies etc. was offered. The Bombay Housing Board is in charge of the construction programme also. Most of the tenements constructed by the Board in the industrial centres of the State are reserved for industrial workers to whom these tenements are rented at subsidised rents.

During the year 1st April, 1949 to 31st March, 1950, 1,186 tenements were constructed at Bombay, Ahmedabad and Sholapur for industrial workers. Of these, 306 are tenements wth a room and a kitchen, 780 have two rooms and 28 three rooms while the remaining 72 are of the hostel type. The size and location of these tenements are shown in the statement below:—

Location	Number of tenements	Type	Size
			Sq. ft.
Bombay			
At the foot of Worli Hill	192	Two rooms	240
Sewree	252	One room & kitchen	200
Wadala	54	One room & kitchen	260

Ahmedabad			
Asarwa	336	Two rooms	225
Sholapur	252	Two rooms	200
	72	Hostel	101
	28	Three rooms	

The State Government could not properly recover the rent of the tenements in particular areas owing to certain legal difficulties and the matter had to go to a court of law. To overcome this difficulty the State Government recently passed a Bill which empowers the Housing Board to recover the rent without going through all the processes which had to be resorted to uptil now, that is, of evacuating the occupants, etc.

Apart from the construction of houses for industrial workers, the Bombay Housing Board is in charge of the execution of other housing programmes of the Government of Bombay. The total number of tenements so far constructed by the Government of Bombay is 5,361 distributed as follows:—

(*i*) Tenements for those in low income groups—

Bombay city	777
Rest of Greater Bombay	1,303
Bombay Suburban District	1,024
Ahmedabad	383
Sholapur	56

(*ii*) Tenements for industrial workers—

Bombay city	478
Rest of Greater Bombay	306
Ahmedabad	448
Sholapur	45

Tenements for (*i*) and (*ii*) above and for students—

Rest of Greater Bombay	245
Sholapur	244
Virar	31
	5,361

In addition to these, the Board decided to construct 660 tenements in Bombay and 112 in Ahmedabad for industrial workers during 1952. The cost of these tenements was expected to be Rs. 32 lakhs and 5 lakhs respectively. In all the State Government have constructed 7,000 tenements and will construct another 1,000 during 1952. The main difficulty has, however, been the short supply of the building material and the problem of its transport.

Loans by the State Government for housing

Government has so far been carrying out its housing programme by means of loans to the Bombay Housing Board. The loans so far given to the Board including the loan under Section 54 (2) of the Bombay Housing Board Act, 1948, amounts to Rs. 4,36,36,000. The Government of India have so far granted an interest free loan of Rs. 75 lakhs to this Government under its Industrial Housing Scheme. This loan was adjusted against the expenditure already incurred from the State Government's revenues on industrial housing. The State Government has also earmarked a sum of Rs. 1 crore for granting financial assistance to co-operative housing societies. Further provision of Rs. 20 lakhs has been made for advancing additional loans to co-operative housing societies. So far loans to the extent of Rs. 115.93 lakhs have been sanctioned to 26 co-operative housing societies for constructing 1,617 standard type tenements. The details of the distribution of the loans already advanced are as follows :—

Place	Number of societies helped	Amount Rs.	Number of tenements
Bombay	9	68,45,253	826
Bombay Suburban District ...	1	5,01,455	64
Thana	2	4,03,095	77
Ahmedabad	13	34,09,920	597
Hubli	1	4,33,434	53
	26	115,93,157	1,617

Other Societies

Serial No.	Name of the scheme under which loan was sanctioned	Total amount of loan sanctioned Rs. Lakhs	Number of societies to whom loans were sanctioned
1	P. W. R. Scheme No. 219 for the benefit of Backward class people.	5.27	22 5 (individuals)
2	Societies for Halpatties	.84	14
3	Societies for flood sufferers of Ahmednagar district.	16.02	22
4	Societies for displaced persons	29.79	8
5	As a special case	3.52	2

The Labour and Housing Department has sanctioned so far the acquisition of land to the extent of about 1,301 acres to 73 co-operative housing societies under its scheme No. 194 of assistance to such societies.

Special schemes of the State Government

A special scheme known as the Post War Reconstruction Scheme No. 219 was also sanctioned in the year 1948 for improving the housing conditions of backward class people in the State by co-operative enterprise. These persons are generally of meagre economic means and engaged as workers in factories or on fields either as small agriculturists or agricultural labourers or as small artisans. The scheme was specially sanctioned to raise their standard of living and providing them with cheap houses. The scheme visualised financial and other assistance to cooperative housing societies formed of Backward class people. It also provided direct assistance to individuals of Backward class people in the areas where no co-operative housing societies could be organised. Government assistance available to co-operative housing societies and individuals under the scheme is indicated below :—

(*a*) Grant of interest-free loans on the following basis :—

Rs. 1,500 for each house, which is estimated to cost Rs. 2,000 in ordinary tracts and Rs. 1,125 for each house which is estimated to cost Rs. 1,500 in Backward tract. In addition to this a loan of Rs. 100 is given to an agriculturist member for construction of a cattle shed and barn. The loan is repayable in 20 years in equal annual instalments.

(*b*) 3 *Gunthas* of land for each family engaged in agriculture and 1½ *Gunthas* (whereof ½ *Gunthas* would be available for pooling for common purposes) for a family engaged in non-agricultural pursuits are provided. In case the building site is a Government land, it is given free of cost and in case it is a private land it is acquired at the cost of Government. The land is to be owned by the society and each member will hold the building plot on lease of 99 years at a nominal rent of Re. 0-4-0 per annum.

(*c*) Subsidy is provided to the societies towards the cost of management at the rate of Rs. 10 per house for the first two years and at Rs. 5 per house per year till the Government loan is repaid in full.

Besides these two major schemes, Government has also sanctioned some other schemes for ameliorating the housing conditions of certain sections of the people. The following are such special schemes :—

(*a*) The scheme for Halpatties in Surat district

Government sanctioned in the year 1949 a scheme for assisting the Halpatties, a Backward class community residing in the Surat district. Under the scheme, a certain number of co-operative housing societies were to be registered. These societies were to get assistance from Government by way of loan and subsidy. Subsidy for meeting the management expenses is also to be given to these societies during the first five years of the scheme.

(*b*) Scheme for assisting flood victims in Ahmednagar district

A special scheme was also chalked out for the benefit of victims of the devastating floods in the Ahmednagar district where a number of houses and some entire villages were destroyed. Under the scheme, 25 housing societies were registered in the flood affected areas for helping the victims to construct their own houses by cooperative efforts. Government assisted these societies by giving loans and subsidies.

Housing for displaced persons

There was the problem of providing housing accommodation to persons who migrated in lakhs into India after the partition of the country. In order to tackle this problem, to some extent by co-operative efforts, Government sanctioned in the year 1949 a scheme for providing housing accommodation to the displaced persons. The scheme envisaged grant of loans to cooperative housing societies of displaced persons at 3½ per cent interest per annum and repayable in 35 years.

(*d*) Housing for the Dangies in Dang district of Bombay State

The scheme was specially sanctioned in the year 1950 for uplifting the Dangies who are exceedingly poor and backward on account of illiteracy, ignorance, superstitions, poverty and ill-health. The scheme envisaged financial and other assistance to the Dangies for meeting the housing needs.

(*e*) Co-operative Societies of Adiwasis and other forest labourers

These societies arrange for essential amenities in the matter of hutting and ensure that the huts erected for temporary stay are decent, commodious and built on hygienic principles.

The number of housing societies in the State in the year 1930, was only 29. Before the World War II, *i.e.*, in the year 1939 the number of societies increased to 98. The number stood at 126 and 857 in the year 1945 and 1951 respectively. The figure of 857 also includes the co-operative housing societies which are organised by middle class persons residing in the urban areas of the State and which do not fall under any of the above sanctioned schemes. These statistical figures indicate that there has been an appreciable increase in the number of societies during the post war period. This was partly because of acute shortage of housing accommodation felt in towns and cities due to increasing migration of the population during the war and post war times.

The State Government have recently (July 1952) formed a Co-operative Housing Finance Society with a share capital of rupees one crore for financing house-building activities. Under the scheme, the Government will own 50 per cent of the shares in the Society and the remaining will be contributed by insurance companies, co-operative societies, etc. The Government will guarantee the principal and a dividend of 3 per cent to the share-holders. This Society, which is the first of its kind, will advance loans to housing societies with a capital of their own for building houses for middle and poor classes.

CHAPTER XV

MADHYA PRADESH

Madhya Pradesh is one of the older and important centres of cotton manufacture in the country. The plain of Berar and Nagpur lying to the west in the valleys of the Purna and Wardha rivers contains rich black soil which makes the area a great cotton growing area. The trade and industries of Nagpur and Jabalpur have attraction for the population of northern tract, while the manganese and coal mines offer considerable attraction to labour. The table below shows the number of working factories and the average daily number of workers employed in major industry groups in 1950.

Industry	No. of working factories	Average daily number of workers employed
Government and local fund factories	38	15,183
All other factories		
A. Perennial		
Textiles (including chemicals and dyes) ...	25	28,587
Engineering	49	1,668
Food, drink and tobacco	692	18,977
Wood, stone and glass ...	145	3,083
Others	184	12,843
B. Seasonal		
Gins & Presses	285	19,715
All industries ...	1,418	1,00,058

Housing in Nagpur

Nagpur is more a collection of outgrown villages than a city in the modern sense of the term. People generally live in clusters of mud huts, two to three miles away from their work. Cottage, rather than courtyard houses, are the type found in these labour *bustis*. Each cottage has a small compound, hedges round with vegetable creepers and other plants. During the rains, the whole *busti* becomes a big pool of mud and water, through which the residents have to make their way. There is generally no drainage system and the few open drains, which are casually dug out by the residents, serve merely to collect dirty water, which stagnates for want of an outlet. There are no latrines and people have to ease themselves in the open fields. Light and conservancy arrangements are entirely absent.

Housing in cotton textiles

In Madhya Pradesh cotton mills are situated at Nagpur, Akola, Hinganghat, Rajnandgaon, Badnera, Burhanpur, Achalpur, Pulgaon, etc. The Empress Mills, Nagpur had constructed some 250 quarters (Bezanbagh) for their workers. The cost of each quarter came to about Rs. 2,800. Nearly 243 houses are occupied by 488 workers, *i.e.*, two workers per quarter. The houses are of varying types with some definite standards for sanitation, etc. Out of these, nearly 200 were built by the workers with the loans advanced by the management. The advances are repayable in about 4 years at the rate varying from Rs. 8 to Rs. 14 p. m. Each house contains two living rooms, a kitchen, a bath room and a latrine and only ⅓ of the plot assigned to the workers is built upon. The management is further considering the construction of more houses provided necessary materials are available.

Housing in cement industry

The Kymore Cement Factory, belonging to the Associated Cement Companies Ltd., is perhaps the largest single unit of the cement industry in the country. It was started in the year 1919 and has today a production capacity of approximately 1000 tons per day and employs about 3,500 workers. The company owns some quarries which are worked through contractors. The total number of workers employed in this factory including quarry labour was 3,422 in March, 1944, and 2,413 in 1950.

The company provides quarters for a very substantial number of its workers and in all there are about 700 quarters meant for the workers. In addition, quarters have been built also for the skilled and supervisory types of employees. The workers' quarters are built in lines containing several tenements. Each tenement consists of a room 10 ft. × 10 ft. and verandah 10 ft. × 7 ft. The accommodation provided differs according to the class of workers. They are all *pucca* structures with cement floorings. There are, however, no special arrangements for water, lighting and sanitation. In addition to the quarters built for its employees the Company has constructed about 280 quarters for the coolies working in the quarries. These consist of single-room tenements 14 ft. × 12 ft. These quarters are not as good as those built for the other employees. Although the housing supplied by the Company for its employees may not be as good as the best in the country, it is certainly one of the very good housing colonies so far as the prevailing housing standards in the country are concerned. Moreover, it is understood that the company has an ambitious programme for building more up-to-date houses for the skilled and supervisory class of workers.

Housing in general

Although large scale improvement was hindered by the non-availability of material, some of the progressive factory owners increased the existing housing facilities attached to the factories, with the result that at the end of the year 1950, 12,475 workers enjoyed housing facilities as against 12,050 workers last year. The following chart shows the comparative housing facilities provided in the years 1946 to 1950:—

Year	Number of workers. Employed in the factories	Provided with housing facilities
1946	101,335	6,639
1947	97,219	9,421
1948	101,646	9,741
1949	96,273	12,050
1950	100,056	12,475

Proposed Industrial Housing Scheme

The need to provide adequate housing accommodation for industrial labour, has been well recognised and the State Government has drawn up a 5 year Plan of Industrial Housing to construct approximately 15,00 houses at a cost of Rs. 50 lakhs for workers. This has been embodied under the Scheme No. 116 of the development plan of the State Government. This plan has taken concrete shape now, in view of the emphasis laid on the industrial housing by the Planning Commission and the comitment of Government under the Industrial Truce Resolution. Capital for financing the scheme has been made available in the form of interest-free loan from Government of India and contributions from the employees and employers—sponsored by the State Government. The capital loan from the Government of India will be repaid in 25 years from the Sinking Fund which will be created from rents received from the employers and the employees according to the conditions of the Scheme. The State Government have passed the Madhya Pradesh Housing Board Act, 1950 and constituted a Statutory Madhya Pradesh Housing Board which has been entrusted with the work of building houses for industrial workers at the various centres, *viz.* at Nagpur, Jabalpur, Achalpur and Pulgaon. An interest-free loan of Rs. 20 lakhs has been secured from the Central Government and 2½ lakhs from the employers. The Board has finished the preliminaries of plans and estimates for the construction of these quarters and the actual construction of the work will be started very soon at Jabalpur, Achalpur and Pulgaon.

Nagpur

Two plots, one of 12.5 acres close to the Model Mills and the other of 9.5 acres in the Rambag area have been selected and the work of lay-out of roads and drainage is in progress. The actual transfer of the sites to the Housing Board awaits the finalisation and completion of the scheme of work.

Jabalpur

The management of the Perfect Pottery Co. Ltd., Jabalpur have agreed to participate in the Housing Scheme to the extent of investing an amount of Rs. 1 lakh in the initial stage and construction of 60 quarters is in progress.

Pulgaon

The Pulgaon Cotton Mills Ltd., showed very keen interest to participate in the housing scheme and have submitted a plan to construct 100 quarters for the workers of the mills. The scheme is under the consideration of the Housing Board.

Achalpur

The Vidarbha Mills Employees' Multi-purpose Co-operative Credit Society Ltd., Achalpur are participating in the housing scheme with the construction of 50 quarters for the members of the Society, who are the workers of the Vidarbha Mills, Achalpur. The site has been selected by the management near the factory and awaits final approval of the Housing Board, and as soon as it is approved, the work of construction will be taken up with the concurrence of the Government of India.

CHAPTER XVI

MADRAS

The development of industries coupled with the growth of cities and towns such as Madura, Coimbatore, Visakhapatnam, Salem etc., has contributed to the acute housing shortage in Madras. The construction of new houses in urban areas failed to keep pace with the rapid industrialisation and consequential increase of population in cities and towns. The vast majority of industrial workers in the city of Madras is crowded in the insanitary *cheries* while many have no shelter and sleep on the street or in the verandahs of godowns and shops. During the last World War owing to the difficulty of securing building materials such as iron, steel, cement, timber, etc. and on account of the abnormal rise in the cost of labour and house sites, construction of new houses practically came to a stand-still while the population in towns and cities continued to increase at a quicker pace. Large number of people from villages migrated and came to stay in towns in search of more attractive livelihood. Since the end of the war (World War II) the scarcity of housing accommodation has assumed the proportion of a major problem in the State particularly in the city of Madras and in industrial towns like Coimbatore, Madura, etc. The single room tenement measuring from 10 ft. × 8 ft. to 12 ft. × 16 ft. which serves as a living room, kitchen and bed room is the common feature in the industrial areas. The environmental, human, sanitary and health conditions in these tenements and particularly in the slums are such that very heavy mortality and morbidity occur in these areas. In most cases no bathrooms are provided and the inmates, both males and females, have to bathe in the open courtyard near the common tap. This causes much inconvenience to the womenfolk. The floor is either of mud or brick or concrete. The rooms are ill-ventilated and dark. Most of them have turned dark with soot and smoke and are seldom white-washed. The rents for these one room tenements vary from Rs. 2 in a few cases up to Rs. 10 ; Rs. 6 being more common. Almost all the houses are privately owned. The Director of Industries, Madras made an enquiry into the family budgets of industrial workers in Madras city in 1938. The enquiry covered cotton textiles, railway workshops, engineering works, all installations, printing presses, etc., and is of a fairly representative character. The Report says: " The rooms are almost devoid of ventilation and the entrance to some of these is so low that one has nearly to double oneself for entering them. The rooms have also very little light, and things inside can be seen only with the aid of a lamp even during day time. Sometimes the floor is on a lower level than the street and rain water would find its way into the house and render the floor damp and unfit for habitation. Washing and drainage facilities and latrines are scarcely provided for. Washing and bathing are done in the streets or lanes which consequently are rendered very dirty. The dimensions of the one room tenements generally vary from 8′ × 5′ to 8′ square." The average expenditure on rent per family is Rs. 3-15-9, *i.e.*, 10.77 per cent of the total expenditure of the family. Expenditure on rent increases as the income increases but the percentage expenditure on this item varies adversely with the income.

Then come the filthy, dirty and congested huts locally called *cheries* which are even worse than the *bustees* in Calcutta in their planless confusion, squalor and insanitation.

The Royal Commission on Labour in India (1931) observed that many of the poorer classes, seeking in vain for accommodation, squat on private land and build flimsy shelters to protect them against sun and rain. It will be difficult to call them houses. When the land owners' demands for ground rent become excessive, these people move to other sites equally unsuitable and no less precarious. Eventually, scattered *cheries* spring up where overcrowding and bad sanitation produce their usual deleterious effects. For want of drainage and in the absence of latrines streams of sewage meander over the pathways. It is not surprising that epidemics frequently break out in these plague spots and that both sickness and mortality rates of their inmates reach high levels. They form ultimately the foci of infection for the city, whose amenities and safeguards are ineffective against this biological invasion of infective bacilli. Each single hut, as in Bengal, is made of mud and thatch or of old kerosene tin sheets and the entrance to it is an aperture rather than a door. The average size of the hut is here reduced to 8′ × 6′ and the material is flimsier than in northern India, yielding more easily to rain and storm which are frequent. Inside each hut, complete darkness reigns even in day time, while there is overcrowding of the worst kind. Mahatma Gandhi's description of the *cheries* of Madura may be given here: "One *cheri* I visited is surrounded by water and drains on all sides. In the rainy season, it must be a place unfit for human habitation and then, thing is, it is below the road level and all these places are flooded during rains. The cottages in all the three *cheries* are built any how. There is no layout of the streets or lanes, and cottages in many places have no vents worth the name. In all cases without exception they are so low, that you cannot enter in and get out without bending double. And in all cases, the upkeep of the place is certainly not even to the minimum sanitary standard."

In the city of Madras there are about 200 such *cheries*, of which more than half are owned by private individuals, 26 by the Government 25 by the Corporation and 27 by the trusts. In these are quartered, about one-third of the population of Madras. A survey has revealed that 35 *cheries*, where about 15,000 persons live, are not provided with municipal water supply. 134 *cheries* occupied by 1,83,000 persons have only 460 water taps. Only 12 *cheries* have an adequate supply of taps. In respect of latrine accommodation 72 *cheries* have none at all while 109 have 121 latrines with about 1,200 seats.

Textile mill quarters

The Buckingham and Carnatic Mills provide housing for nearly 10 per cent of their workers. They have built 659 houses in 4 villages. The houses usually consist of a living room, a kitchen, washing place and a front verandah and a yard. The layout is spacious and roads are lighted with electricity. A nominal rent of Rs. 1-8 is charged though for larger accommodation the rent varies from Rs. 3 to Rs. 5 per month. Charges for the lighting, conservancy and water are paid by the company. About 6 per cent of the permanent workers have been provided with housing in these colonies. Cleanliness of the colony is generally observed and special caretakers have been employed. The Madura Mills employ 13,722 workers and 492 other employees. About 99 per cent of the former draw a salary between Rs. 51 to Rs. 100. So far, the mills have provided 780 houses for workers drawing less than Rs. 100 per mensem. Until 1939 they had only workers' lines consisting of 176 houses, which now accommodate 252 workers. In 1939 they launched a co-operative housing scheme under which the workers by paying easy monthly instalments could eventually become the owners of the houses. The mil's acquired 91.78 acres of land during 1938-39 through Government help at a total cost of about Rs. 19,000. The total cost of the colony inclusive of the cost of sites is about 6.52 lakhs of rupees out of which the cost recoverable from the workers is Rs. 3.62 lakhs at Rs. 600 per worker. The workers are required to pay their share by monthly payments at the rate of Rs. 4 per house. It is provided in the scheme that the workers may become the owners of houses in about 12½ years. At present, 1,480 workers with their dependents totalling 4,000 persons have been provided with housing in 604 tenements. Under the scheme, the following amenities have been provided, *viz.*, protected water-supply, sewerage and schools. Transport facilities have also been arranged with the South Indian Raiway. The mills have agreed to defray the cost of season ticket of Rs. 1-5 per mensem per worker. The mills have more housing schemes under consideration. They consider that their scheme, whereby the employers build houses and collect the value in instalments, is better than houses built at the employer's cost. This scheme, however, is disapproved by the Buckingham and Carnatic Mills, for the reason, that as retiring employees keep the houses, new employees have to be provided with new houses adding a constant burden on the mills besides the possibility of a mill colony developing into a mixed colony.

Co-operative Societies

In addition to the housing provided by employers and other private constructions, the Co-operative Societies have helped to a very great extent so far as the housing programme in the State is concerned. The co-operative movement was started in the State as early as 1913-14, though real progress was made from 1924 onwards when Government undertook to finance them. In 1947 the District Collectors were instructed by the State Government to constitute Housing Committees in municipalities and *Panchayats*. As a result, such Committees were constituted in 75 municipalities and 198 *Panchayats* for the selection of suitable sites for the introduction of co-operative housing schemes. Many housing societies under the scheme have been registered and will commence working shortly. In the remaining cases, the organisation of housing schemes is pending with the district officers of the Co-operative department.

These Co-operative societies fall under the following categories:—

(1) Co-operative Townships which acquire land, construct houses and also provide civic amenities to the inhabitants.

(2) Co-operative Housing Construction Societies which construct houses and rent them out to members under the hire-purchase system.

(3) Co-operative House Building Societies which undertake the construction of houses on behalf of their members as agents.

(4) Ordinary Building Societies which advance long term loans for the construction of houses by the members on sites owned by them.

The first Co-operative township to be registered in the State was the Katpadi Co-operative township in North Arcot District. The township collected a share capital of Rs. 6.86 lakhs and a Special Land Acquisition Officer was appointed for acquiring the lands for the township. There are five Co-operative Housing Construction Societies at Madras, Tanjore, Trichinopoly and Madura. Some of these Societies have already acquired land and have started the construction.

Co-operative House Building Societies have been registered at Ellore and Kavur in West Godavari District, Madanapalli in Chittoor District and at Ballary. These are, however, exclusively for Government servants.

Ordinary Building Societies have been formed or ordered to be formed at Calicut, Tirumangalam, Rajapalayam Dharampuri, Rajampet, Srirangam, Trichinopoly, Cuddapah, Anantapur, Salem and Guntur districts in addition to the already existing societies in South Arcot, Madura, etc.

Complete details of the Co-operative Societies in the State have been given in a separate Chapter.

Forms of State Assistance

(*i*) Finance

Government have undertaken to finance housing schemes. Under the revised five year plan of housing it has been estimated that loans to the tune of one to one and a half crores per year may be required for a period of 5 years. This amount is placed at the disposal of the Registrar of Co-operative Societies for being sanctioned as loans to cooperative housing societies. The current rate of interest charged by Government on loans to cooperative housing societies is 3¾ per cent per annum.

(*ii*) Special staff for land acquisition

In order to expedite land acquisition proceedings, Government have recently sanctioned special land acquisition staff to work under the administrative control of the Registrar of Co-operative Societies. They have also ordered that the emergency provision of the Land Acquisition Act should be applied in respect of co-operative housing schemes wherever possible.

(*iii*) Services of departmental officers free of cost for one year to work as Secretaries of Societies

In deserving cases, the services of departmental officers are lent to the housing societies at half cost or free of cost to work as their paid Secretaries. Engineers and Supervisors of the Public Works Department are also deputed to housing societies on payment of cost to supervise the construction of houses.

(*iv*) Arrangements for the supply of essential building materials

(*a*) Iron and Steel

Government have made special arrangements for the supply of iron and steel for co-operative housing schemes. A special quota of steel and pipes for Government sponsored housing schemes is placed at the disposal of the Registrar for distribution to co-operative housing societies. Suitable military surplus stores were also purchased by the Public Works Department for being sold to housing societies.

(*b*) Timber

Government timber is supplied to co-operative housing societies at concessional rates from the Madras Government forest.

(*c*) Cement

Government requested the Honorary Regional Cement Advisers to supply cement on a priority basis to co-operative housing societies on the recommendation of the Registrar. Recently Government have undertaken to purchase cement at I. S. D. rates and supply it to cooperative housing societies.

It is hoped that with these facilities cooperative housing schemes will make headway and solve the housing problem to a considerable extent.

It has been calculated that about 19 per cent of the income of the working classes goes as rent. In the *cherics* the dwellings consist as a rule of one room huts of more or less the same size. Overcrowding is less in the street houses than in the *cheries*.

Many of the *cheries* have been constructed on low lying land without adequate drainage. During the rainy season most *cheries* in the south Indian cities are surrounded by stagnant pools of foul water, which is replenished constantly by drainage from the roads and high grounds on all sides. Rents of these single rooms are exorbitant, ranging from Re. 0-8-0 to Rs. 2-0-0 giving opportunities to landlords, not excluding municipalities and temples, to exploit the situation by building more and more of the flimsy huts at all angles and utilising all available space and leaving them without repairs for a considerable time. No wonder that the untouchable castes who are denied social opportunities of improvement of their manner of life and who live under such vile and wretched conditions, seek to forget their hard day's toil and their unwholesome living conditions by drink and gambling, while there wallow in the mud and filth around them herds of pigs who are the legitimate scavengers in the *cheries* !

The population of the Madras city within the old Corporation limits has been growing with enormous rapidity during the last five years. While the population of the city in 1941 was 7.77 lakhs, it increased to 12.35 in 1946, the percentage of increase being 60. The available number of houses in the city was 90,000 out of which only 66,014 have a rental value of over Rs. 36 per annum and the remaining houses are just hovels and slum dwelling requiring to be replaced. At present the number of houses including huts is 1,05,000 for a population of 14 lakhs.

Lack of finance and difficulties and delay in the acquisition of house sites are the two main impediments in the way of progress. However, the Madras Improvement Trust has formulated a Rs. 6

crore five-year plan to build 20,000 houses. The plan envisages the formation of co-operatives to lend money for the purchase of house sites, and an initial outlay of Rs. 1 crore is sought to start the scheme. The Trust has so far framed 20 schemes ; of these one was dropped after sanction as the cost of acquisition was prohibitive and of the remaining 11 have been sanctioned by the Government, three are awaiting sanction and two have been returned for revision. Land value is still prohibitive. If it is brought down, it will be possible to construct houses for the poor and the middle class people for prices ranging from Rs. 5,000 to Rs. 10,000.

Tenements constructed by the Madras Corporation

The Madras Corporation has constructed 1,758 model tenements and houses in different localities within its limits. Drinking water is supplied by common taps, one or more being provided for each block. In certain parts only sewage system is provided while in other parts open drainage is prevalent. Some of the tenements are provided with electric lights. A brief description of the tenements built by the Corporation is given below :—

1. Harbour Tenement

This is a building providing accommodation for 187 families and was built by the Corporation in 1938. One room and a verandah is allotted to each family on a monthly rent of Rs. 3. This is occupied mainly by dock coolies earning a daily wage of Rs. 2/- to Rs. 2/4.

2. Bandar Ramnaiykar Tenements

These are occupied by small traders, hawkers, bidi makers, basket makers and mat makers, etc. The accommodation is one room, kitchen, store and latrine and the monthly rental is Rs. 2/8 per family.

3. Dr. Besant Nagar (Perambur)

This was built by the Corporation in 1931 and is mainly occupied by mill workers. One room, kitchen, store and latrine are allotted to each family on a monthly rental of Rs. 1/8/-.

4. Cornan Smith Nagar (Perambur)

This was built by the Corporation in 1931. One room, verandah, store kitchen, latrine and small compound are allotted to each family on a monthly rental of Rs. 2. Some 186 families are accommodated. One occupier working in the Corporation reported his monthly earning to be Rs. 45.

5. Tenements at Perambur

In these tiled sheds with *pucca* walls, one room, verandah and a latrine are allotted to each family on a monthly rental of Rs. 2. Some 240 families are accommodated.

Recently the Madras Corporation has commenced a larger housing scheme—known as Shenoy Nagar Housing Scheme for accommodating the middle class families. It has been arranged that the occupants of these houses will become proprietors thereof on payment of monthly rent for 20 years. There are four types of houses, namely, 'A' type, 'B' type, 'C' type and 'D' type. All these houses are two storeyed with open spaces around having varying accommodation according to the type to which they belong. 'D' type houses, the smallest ones, are quite fine and commodious for a small middle class family. The qualities to 'A', 'B' and 'C' type houses are improved by graduation. 'A' type houses are quite luxuriant. The total cost of the schemes will be about Rs. 1.2 crores, a loan of Rs. 8 lakhs has already been obtained from the Government and the construction of the building has been started.

The sites allotted for residential buildings comprise the following categories. 24 plots of about 7,200 sq. ft. each are to be used for construction of dwellings for persons whose average monthly income ranges between Rs. 250 and Rs. 750, 392 houses are to be built on sites of about 4,800 sq. ft. each for persons of income ranging between Rs. 100 to Rs. 250, 311 sites of about 3,600 sq. ft. each are intended for dwelling for persons with an income ranging from Rs. 50 to Rs. 100. Provision has also been made for sixty quarters for domestic servants employed in the area. When completed this colony is expected to be self-sufficient unit with all facilities planned on modern lines.

It is understood that the Council of the Madras Corporation has accepted the proposal of the Commissioner that a Housing Board for the city be constituted with adequate powers and that the Government be requested to pass suitable legislation to enable the Corporation to undertake the scheme. The Commissioner had pointed out that the city had a population of 14.29 lakhs and the average strength of a family was about six. On this basis, they required about 2,38,000 houses. They had at present (August 1952) 1,05,000 houses including huts and they required 1,33,000 houses more. The Commissioner thought it was not difficult to build 50,000 houses within the first ten years if the proposals made were approved *in toto*. Among the proposals made are large-scale acquisition of vast open land and construction of an adequate number of tenements for housing the poor, middle class and the lower class. The cost of land and construction of a standard tenement suitable for a family of six with provision of all amenities is estimated at Rs. 5,000. Therefore, 50,000 houses will cost Rs. 25 crores. He thought that about 75 per cent of this sum could be borrowed and the balance of 25 per cent would have to be contributed by the State and the Union Governments as subsidies. The borrowed amount can be repaid in a period of 30 to 60 years. The economic rent for a tenement costing Rs. 5,000 would be Rs. 23 but since most of the occupants could not pay this the State and the Union Governments and the employers must contribute part of the rent. The scheme has aroused great interest.

There are 81 municipalities in Madras. The census of 1941 showed that the population in these 81 municipalities was 30.25 lakhs. The population in the 69 municipalities which were investigated by the Madras Provincial Housing Committee was 28.81 lakhs in 1942 which rose to 38.80 lakhs in 1946. The total number of houses in the 69 municipalities in 1941 and 1946 was about 460,543 and 552,700 respectively. While the increase in population in the last five years was 33.2 per cent, the percentage of increase in the total number of houses during the same period was only 25 per cent. It is however gratifying to note that some of the municipalities have already made progress in regard to provision of housing.

The Madura municipality has built six colonies for municipal Harijan employers. All the colonies have electric lighting, protected water-supply, common bath-rooms and flush out latrines which are either connected to the underground drainage system or disposed of through septic tanks. In Ootacamund there are six types of model houses, which are utilised as quarters for the municipal staff. The dwellings are stated to be not comfortable ; nor do they appear to satisfy the minimum requirements of a model house. These quarters consist of a single room 10′ × 10′ or 10′ × 8′ with or without small verandah in the front. The Coonoor municipality has constructed some model tenements for the poor people. This is commendable.

In the Narasaraopet municipality, type design quarters for the occupation of municipal health department employees have recently been constructed. Each house consists of a main room measuring 12 feet by 10 feet with a verandah 6 feet wide on both sides to be used as kitchen and frontage respectively. In continuation of the verandahs, 10 feet vacant space is left in front and rear of each house to be used as an open yard. For housing municipal inferior staff, house sites at concessional rates have been granted wherein the employees have constructed thatched houses measuring 300 sq. ft. These huts are built to a type design. Adjoining the peons' colony the municipal staff colony is constructed where there is accommodation for housing 80 employees. The plots are uniform in size and it is hoped that they would be built upon a uniform standard.

Recommendations of the Madras Provincial Housing Committees (1948)

The Committee was of the opinion that the housing development should be properly planned and executed. For the purpose, a detailed survey of housing, showing the extent of overcrowding existing in each individual area and the number of houses which are below human standard of habitation, should be undertaken to serve as a correct guide for formulating housing schemes in that area. The committee has endorsed the recommendations of the Bhore Committee that "it is the responsibility of the Provincial Government to deal with the problem of housing and executing housing schemes." This responsibility has, of course, to be shared by local bodies or public authority such as Improvement Trusts. But the Government must be responsible for ensuring coordinated progress and for encouraging others to make a determined effort to provide more and better houses for the people. The Government and local bodies as well as big employers should set example in the matter of housing their employees especially of low income group (Rs. 200 and under) and should undertake immediately housing programme for the purpose on a 20 year basis. With regard to the housing of the industrial workers and employees of local authorities the Committee suggested that the State Government should subsidise the cost of such housing to the extent of 25 per cent and secure another 25 per cent from the Government of India. So far as the standards of housing are concerned, the Committee were in general agreement with the recommendations of the Bhore Committee, the Public Health Sub-Committee and the Industrial Housing Sub-Committee of the Standing Labour Committee of the Government of India, that is, a minimum floor (carpet) space required for a house for six inmates should be 340 sq. feet, the mean floor area per adult should be 75 sq. ft. and for a child under 10 years 40 sq. ft.; the minimum floor area of a living or a bed room should preferably be 120 sq. ft. but in no case should it be less than 80 sq. ft., the height of a room should not be less than 9 feet from the level. In the case of flat roofs the minimum height should be 10 ft. The minimum plinth level should be 18 inches above the level of the centre of the nearest street. The height of doors should not be less than 6 ft. 3 inches but should preferably be 6 ft. 9 inches for main doors. The width of doors should not be less than 3 feet for main doors though for bath rooms it may be 1 ft. 8 inches. The area of windows and ventilators should in no case be less than one-sixth of the floor space. The kitchen should not be less than 60 sq. ft. in area. The bath room should not be less than 24 sq. ft. The lavatory should be of the minimum size of 16 sq. ft. Essential amenities should be provided for each house.

The minimum housing standards prescribed should be applicable to all house constructions undertaken by any agency whatsoever. The Government should give loans to local authorities for launching the housing scheme which would be interest free and repayable in a period not exceeding 40 years. For financing housing scheme the Government should create a Housing Fund and raise money through taxation, *viz.*, (1) housing cess (2) a surcharge on property tax and profession tax (3) a uniform levy per employee on industrial and commercial establishments (4) a portion of the Entertainment tax to be earmarked for housing and (5) Railway passenger terminal tax.. The Committee recommended that a Housing Act on the lines of the English Consolidated Housing Act of 1936 should be placed on the Statute Book. The main objective to be achieved by the Act was to apportion responsibility in respect of the housing of the poor, the working classes and families in low income groups upon the various authorities or agencies concerned ; to ensure that housing in general conforms to the minimum standards prescribed ; to end overcrowding ; to constitute authorities, wherever necessary, to undertake housing projects; to provide finance, State subsidies, etc., for launching housing projects and to achieve objects ancillary to the goal of adequate housing.

CHAPTER XVII

ORISSA

Accurate figures for accommodation of labourers are not available. However, about 1,260 houses accommodating 3,233 factory workers have been built after 1947. Government in the Development (L. S. G.) Department as a postwar measure sanctioned Rs. 8 lakhs to 8 municipalities in this State to construct type design sweepers' quarters and these have been constructed in most of the cases.

The major causes of the shortage of adequate workers' housing in the State are :—

(*i*) The majority of factory workers in Orissa are drawn from villages for short periods in the year whenever they find no employment in agriculture. They leave their families in their native villages to which they invariably return after the lapse of a few months. They live in barracks or huts made by factory owners or in rented houses.

(*ii*) Illiteracy and lack of bargaining power on the part of labourers to demand proper accommodation.

(*iii*) Low wages to factory workers also stand in the way of their paying rent for proper accommodation and consequently the employers do not invest money in constructing proper accommodation for their employees.

(*iv*) Want of any legislation compelling the employers to provide accommodation for their employees.

The employers of organised industries such as paper mill, glass factory, textile factory and a few mills have supplied quarters at full economic rents to their lower staff and free of any rent to their daily workers.

Government of India have sponsored an Industrial Housing scheme to increase housing accommodation for the workers and the establishment of a Regional Housing Board in the State is being examined. In this scheme stress has been laid on permanent construction. The salient features of the scheme are grant of interest free loan to the extent of 2-3rd of the total cost of construction of houses to industrialists who provide the remaining 1-3rd of the cost of construction. The loan is repayable by the industrialists in 25 years. The industrialists are entitled to recover as rent 21 percent of the capital cost subject to a maximum of 10 per cent of the workers wages. Rs. 29 lakhs so far have been obtained as loan for this scheme. In addition, the construction of houses for the transport workers of Government by the Transport department is also being taken up.

Government help

1. In the year 1950-51 a sum of Rs. 10 lakhs was granted to industrialists as loan for construction of such houses and 160 two roomed quarters were constructed. With the further loan of Rs. 10 lakhs obtained in 1951-52 a similar number of houses have been constructed.

2. Help for acquisition of land for building sites is given by Government through the Land Acquisition department whenever it is required.

3. Controlled building materials such as iron, steel and cement are arranged for building construction through the State Supply Department.

4. The Industrial Engineer appointed under the Director of Industries of the State helps the private parties in rendering technical advice to them whenever required.

5. Cement industry has been established in the State to increase production of building materials and other requirements are obtained through the Supply Department.

6. Arrangements have been made to draw adequate requirements of the industrialists in regard to constructional materials.

7. Training in different trades such as carpentry, smithy etc., is imparted in the Industrial Schools. The trainees are also given stipends.

8. Higher training in Civil Engineering, Architecture, etc., is given to the students of Orissa by deputing them outside the State with Government stipends.

There are no House Building Co-operative Societies in the State. A Town and Country Planning Bill is, however, under the consideration of the State Government. The State also has a Rent Control Act (1950).

CHAPTER XVIII

PUNJAB

The State of Punjab has about 1,200 factories registered under the Factories Act, 1948. Of these, about 120 employ 100 or more workers, while a few larger units employ from 1,500 to 2,500 workers. Besides, there are Tea plantations in the Kangra district employing about 10,000 workers. The Nangal and Bhakra project undertaken in the State employs 15,000 workers. The industries in the State range over several types—textiles, artificial silk, woollen, hosiery articles, sports and leather goods, utensils, chemicals, paper, sugar, glass works, vegetable products, starch making, distilleries, general engineering, flour milling and scientific instruments, etc. The main concentration of industry has been at Amritsar, Chheharta, Verka, Batala, Dhariwal, Jullundur, Ludhiana, Jagadhri, Ambala, Panipat and Bhiwani. During the last 4-5 years power development of the industries at places like Abdullapur (Jamna Nagar), Panipat, Sonepat and Bahadurgarh has made good progress.

The influx of population after the Partition resulted in the housing problem getting more acute all over the State, particularly as much of the rural population in Pakistan also preferred to settle in the towns. The industry had also to face the problem of replacing skilled Muslim labour which had left for Pakistan. This led to the need for training more workers and lodging them around the place of work.

In spite of the shortage of building materials and other difficulties, facts show that the employers, on a voluntary basis, have made fairly reasonable efforts in constructing more houses for their workers, considering the size of the average unit. About 1,250 houses have been constructed for industrial workers by employers (including Government) since the Partition in August, 1947. Due to the gigantic project being undertaken by Government at Nangal and Bhakra, it has become necessary to construct labour colonies there. The number of quarters constructed by Government at Nangal and Bhakra and Nilokheri-810-thus exceeds the number of quarters constructed by private employers —436.

In all, nearly 4,000 quarters have been constructed so far in the

State by private employers and Government. The number of quarters is as follows :—

Name of district.	Total No. of houses constructed
1. Kangra	115
2. Ferozepur	388
3. Amritsar	1,588
4. Ludhiana	48
5. Ambala	854
6. Gurdaspur	179
7. Hoshiarpur	41
8. Hissar	657
9. Gurgaon	11

The accommodation and the layout of the quarters constructed by Shri Gopal Paper Mills and Sarswati Sugar Mills at Jagadhri in Ambala District and by the New Egerton Woollen Mills at Dhariwal are particularly good and the quarters, in most cases, are allotted rent-free or on nominal rent. The quarters constructed for employees in the Government Central Workshop, Amritsar, are also of quite a good standard.

The construction of quarters by individual employers is confined to the larger units who have enough finance. The number of the large units in the State is, however, relatively only a small percentage of the total number of industrial establishments. The workers working in the smaller units have also to find some roof and in this perspective, however creditable may be the effort of the larger employers in accommodating their workmen, the general problem of housing of the average workers in the town remains very acute.

Planning for the future

The circumstances shown above make out a clear case for State help for relieving congestion in industrial housing. The State Labour Advisory Board set up by the State Government had appointed a Sub-Committee to report on the question of industrial housing and the drawing up of plans for cheaper types of construction. Ultimately the financing of the scheme proved a bottle-neck which, however, was overcome after the Central Government granted a loan of 10 lakhs of rupees to the Punjab Government for industrial housing during the financial year 1950-51. The State Government have agreed to pay up their part of the contribution for the year during 1951-52, and have also incorporated in three years' and five years' Development Plans a provision for drawing an equal amount of loan from the Government of India every year and contributing their share of 5 lakhs of rupees during each of the next five years.

The Government of India in their earlier scheme for Industrial Housing had indicated that Central Legislation was contemplated for the purpose of requiring the employers to pay up their share of the rent statutorily. Pending bringing out such a scheme, the employers have been asked to volunteer to avail of the schemes and agree to pay their share of the rent for the quarters allotted to their workers, during a period of 25 years.

The employers were asked (*i*) to intimate whether they would like to avail of the Government of India's scheme and (*ii*) to state the number of houses proposed to be constructed for their workers, showing separately quarters for bachelors and families and indicating also the areas in which it was proposed to set up the houses. The replies received were fairly encouraging to start with and some twenty employers expressed their desire to construct 957 houses in all, of which about 553 would be family quarters and 104 for bachelors. Approximately at a rate of Rs. 3,500 per quarter, the amount needed for the construction of 657 quarters would be about 23 lakhs of rupees which would show that there would be ample scope for utilising the grants on the basis of a voluntary response from the employers. There are chances that if the houses for workers are well constructed and become popular, the response, even on voluntary basis, from more employers would be forthcoming in the future.

For the purpose of ensuring that the plans for the construction of industrial houses are the best that can be ensured, an effort was made to get the plans and estimates of the concerns who are known to have undertaken the construction of industrial housing with a measure of success in this Sate and elsewhere in India. The plans and estimates received from several quarters are under examination of the Government.

The work for the construction of workers' quarters in accordance with the scheme of Industrial Housing formulated by the Government of India is under action. A sum of Rs. 7½ lakhs (2½ lakhs by the State Government and Rs. 5 lakhs by Government of India) was earmarked for the purpose during 1952. The establishment of a Regional Housing Board is also under consideration. The position in regard to the specifications, subsidies and loans will now, however, change in view of the Government of India's latest subsidy and loans scheme, details of which have been given separately.

CHAPTER XIX

UTTAR PRADESH

Extent of the Problem

The U. P. is an important centre of organised industries. The most important of which are (*i*) Textile, (*ii*) Sugar, (*iii*) Glass, (*iv*) Leather and Tanning and (*v*) Oil. There are 1,181 registered factories in the State spread over different centres, *viz.*, Kanpur, Lucknow, Agra, Banaras, Moradabad, Rampur, Firozabad, Hathras, Saharanpur, Bareilly, Meerut and Gorakhpur. The following table will show the growth of factories and factory employment in the State :—

Serial No.	Year	Number of working factories	Average daily number of workers employed
1	1939	546	1,59,738
2	1940	654	1,80,634
3	1941	811	2,24,316
4	1942	840	2,32,524
5	1943	856	2,54,839
6	1944	943	2,78,238
7	1945	969	2,76,468
8	1946	971	2,57,140
9	1947	967	2,40,396
10	1948	1,040	2,42,083
11	1949	1,178	2,33,837
12	1950	1,253	2,32,695
13	Half year ending June 1951.	1,181	2,28,511

The U. P., like other States of India, is faced with the acute shortage of housing. Even in pre-war years the construction of houses in urban areas did not keep pace with the increase of population in cities and towns. The result was an unplanned urban development of habitation in industrial centres leading to congestion and stingy slums. During the war, (World War II) sudden influx of population due to rapid expansion of industries as well as other activities accentuated by mass movement of people due to Partition in 1947 have resulted in appalling overcrowding and congestion in the cities of Lucknow, Kanpur, Allahabad, Agra and Meerut and certain other smaller towns like Dehra Dun, Banaras and Bareilly. Increased activities such as cloth control, rent control, labour exchanges, etc.. are also responsible for an increase of population in urban areas, especially in Lucknow and Kanpur. The situation has further been aggravated by the stoppage of construction of new houses owing to high cost of land, labour and building material. The increased population had to find accommodation in the houses that existed before 1940. So far as rural housing is concerned, the problem is not so much to build new houses or to establish new villages discarding old ones as to improve the existing houses and providing better sanitation, roads and other facilities, like drinking water, light, etc. As for industrial housing, it is estimated that the present shortage of housing in U. P. is in the neighbourhood of 2.50 lakhs, that is, .60 lakhs for Kanpur and 1.90 lakhs for other places in the State. The main problem of industrial housing is in respect of Kanpur, although other industrial areas like Firozabad, require consideration. A brief review of the housing facilities provided by various industries has beenattempted below.

Textile mill quarters

There are 38 registered cotton textile factories and the average number of workers employed by 35 out of these 38 mills in 1949 was 56,747. Out of these, 14 factories employing 46,760 workers, are located at Kanpur, 6 employing 506 workers at Agra, 3 employing 3,314 workers at Hathras and one each employing 2,413, 1,393 and 1,285 workers at Banaras, Lucknow and Meerut respectively. The remaining small 12 factories are located in different towns.

In Kanpur the Elgin Mills have provided two workers' colonies consisting of 156 houses. The rents charged vary from Rs. 1/2 to Rs. 3/8 per month. The J. K. group of mills have also provided a large colony for their workers. The Cawnpore Cotton Mills have provided a colony at Kakomi consisting of 319 quarters of which 165 are single room tenements built back to back and the rest two roomed quarters. The rent charged varies from Rs. 1-8 to Rs. 2 per month.

The workers' private dwellings are generally awfully over-crowded and insanitary and result in functional confusion, loss of time, dissipation of energy and continuous threat of diseases and epidemics and social decay. The report on housing conditions of mill workers in Kanpur shows that roughly 64 per cent workers live in single room tenements while 32 per cent live in two roomed tenements. The model dimensions of the room are 11′ × 9′ × 11′ or about 100 sq. feet in area and about 1,000 cft. in space. Verandahs are available to 59 per cent families living in one-roomed dwellings and to 25 per cent families living in two-roomed dwellings. The position in regard to ventilation, water-conventions, privies, dust-bins. drainage and over-crowding is deplorable. Hitherto no outside agency, public or private, has undertaken the provision of sanitary dwellings, but a few employers have provided housing accommodation to a proportion of their workers, as already mentioned.

Paper mill industry

In U. P. there are four factories, two employing 958 workers at Saharanpur, one each employing 603 and 355 workers at Lucknow and Meerut respectively. The L. I. C. surveyed one mill in Saharanpur, the number of workers being 700 at the time of survey. The company have provided free housing accommodation to 70 per cent of the operatives. Most of the lower paid workers are housed in single room quarters having a verandah and an enclosed courtyard. Though ventilation is defective, proper arrangements for drainage have been made. Common arrangements for water-supply and sanitary have been made in some cases.

Jute mill quarters

The State has three jute mills which employed a total average of 6,852 workers in the year 1949. Out of these, two mills are located in Kanpur city and they employed 5,394 workers. The third one is located at Sahjanwa in Gorakhpur and employed 1,458 workers. The J. K. Jute Mills at Kanpur is the biggest mill in the State and employed 5,110 workers. Generally speaking, the housing conditions are not very unsatisfactory. One mill has housed about 125 workers in double storeyed *chawls* containing a room 10′ × 12′ in size with a verandah. The rent charged varies from Re. 1 to Rs. 3 p. m. There are common arrangements for water taps and latrines.

Glass industry

There are 118 glass factories and they employed 8,482 workers in 1949. Out of these 101 factories are located in Agra district, specially at Firozabad, which employed 5,211 workers in 1949. The remaining 17 factories are located in Aligarh, Allahabad, Banaras, Bijnore, Mainpuri, Meerut and Moradabad districts.

The U. P. Glass Works Limited, Bahjoi, have housed 7 per cent of their total labour force. The quarters are *pucca* with brick laid roof and flooring. The rents charged for quarters allotted to inferior staff vary from two annas to 8 annas per mensem while the rents of the superior staff quarters vary from Rs. 1/8 to Rs. 2 p.m. In the better type of quarters latrines and water taps are provided, but sanitation is poor and water supply is practically non-existent. The Ganga Glass Works, Balawali, housed 250 workers out of a total of 729 free of rent in 209 quarters of eight different types. These are common Indian type single-roomed tenements. Water taps and open latrines have been provided. In Firozabad, some cutting factories have provided housing accommodation to a proportion of their workers. The Jain Glass Works at Harangau provided 22 quarters to their employees. The quarters are all single room tenements having one room (10 ft × 10 ft. × 10 ft.) a courtyard (12 ft. × 10 ft.) outside the room and at the right extreme corner of the courtyard a small walled enclosure 3 ft. sq. to serve the purpose of a urinal or latrine.

Shellac industry

The U. P. enjoys a prominent position in the production of shellac and seedlac. Mirzapur, having 17 factories and employing 2,000 workers, is the largest centre in India. There is not much housing provision at Mirzapur, for the shellac workers live in the town *bustees* and are also scattered in the neighbouring villages. Single room tenements are let out for Rs. 2 or 3 per month. The structure and sanitary conditions of these houses are like those of houses in any other small town in north India.

Municipalities

The Kanpur Municipal Board is one of the principal municipalities of India. It had in its employment 3,255 workers in five departments in 1951. The Board have housed about 500 or one third of the scavengers in 208 quarters which have been built in four localities. The labour employed in parks and gardens have been provided rent free quarters.

The quarters are of three types—one-roomed houses, two-roomed houses and houses with one room and a verandah. Single rooms are generally 10 ft. × 8 ft. the dimensions of verandah being 8 ft. × 5ft. The monthly rent varies from Re. 1 to Rs. 2 per quarter. These houses have *pucca* walls and in some cases even the floors are paved with bricks. The roofs are either *pucca* or thatched with tiles or tin. Common water taps and latrines for males and females separately have been provided in each *ahata*. Acute housing conditions in the city have led to congestion in these quarters as well and in a large number of cases more than one family lives in one quarter.

These quarters are in a very unsatisfactory condition. There are open drains all round and the compounds are in a filthy condition. Nor is adequate provision made for the supply of water and sanitary arrangements.

About 30 workers out of a total of 275 working in the water works have also been provided with rent free quarters which are one-roomed houses. Common latrines and water taps have been provided.

Woollen mills

In U. P. there are four registered woollen factories two of which, employing 3,448 workers, (in 1949), are located at Kanpur. The remaining two, employing 238 and 106 workers, are located at

Mirzapur and Allahabad respectively. Kanpur Woollen Mills is the biggest concern in the State and has a special settlement for its workers. It contains 43 blocks of houses with 853 quarters. Apart from the quarters built for the supervisory staff, the workers' quarters contain either one or two rooms with an attached verandah. The double-room quarters consist of two rooms each 10 ft. × 12 ft., a verandah 21 ft. × 6 ft. and a courtyard 21 ft. × 11 ft. The rent charged for a single quarter is Rs. 1/4/- per month while for the double quarter it is Rs. 4/8/- per month. This is one of the good settlements in Kanpur and the mill authorities have taken care to see that the surroundings are kept clean and in sanitary condition. Certain special amenities are also provided in the settlement for the welfare of the operatives and their families, such as dispensary where the workers and their families are treated free of charge, a primary school for boys and another for girls, etc.

Sugar industry

The Uttar Pradesh is the largest sugar producing State in India and the sugar industry occupies a vital place in the economy of this State. Viewed from the number of persons employed in factories, the sugar industry comes only next to the cotton textile industry in the State. There were 77 sugar factories in the State and they employed 49,312 workers in 1949. The factories are located in different districts, but the most important areas are Deoria, Gorakhpur, Meerut, Lakhimpur-Kheri and Basti districts.

Until recently there were no adequate housing facilities for sugar workers. Steps have recently been taken by the State Government to provide suitable housing facilities to sugar workers. A Fund has been created out of the sale proceeds of molasses, which would be utilised for the construction of houses for workers in the sugar and allied industries and for the welfare and development of the industry. The Government had advertised for designs of suitable workers' quarters which could be constructed with the minimum quantity of available building materials like steel and cement. A number of designs were examined by a small experts committee. A sum of rupees 1,70,432 has so far been paid to different sugar factories towards the cost of construction of houses and 368 houses had already been constructed up to the end of August, 1952.

Tanneries and leather goods

This industry is mainly confined to Kanpur and the daily average number of workers employed is estimated to be 20,000. The Cooper Allen & Company have built about 800 quarters in which nearly 20 per cent of their employees live. The rent varies from Rs. 1/10/- to Rs. 50 per quarter per month according to the accommodation and the status of the employees.

Kanpur

The most congested area in the State is Kanpur. Besides having a large number of cotton spinning and weaving mills, Kanpur is an important centre for the tanning and manufacturing of leather goods. There are also a number of engineering works, foundries, glassware factories, oil and flour mills, jute and woollen mills, ice factories and chemical works. There are 178 factories in Kanpur, employing more than a lakh of workers per day. Kanpur is proverbially known as "The Manchester of India". It is densely overcrowded and insanitary. Very little attention was until recently paid to the question of housing the large and rapidly increasing population.

Kanpur is one of the most glaring instances of an Indian city where haphazard industrial development and expansion of factories in the very heart of the city have resulted in serious overcrowding for the working class. The problem is not of recent origin. Even when there were 70 factories in and around the city employing only 32,617 persons per day, the conditions were known to be deplorable. The Royal Commission on Labour as early as 1930, rightly commented in their Report—"Three quarters of the town is made up of private *bustees* or *ahatas* which are covered with houses either unfit for human habitation or in great need of improvement. Most of the houses consist of a single room, 8 ft. × 10 ft. with or without a verandah and such dwellings are frequently shared by two, three and four families. It is not uncommon for the floor to be below ground level and drainage, ventilation and sanitation are entirely wanting." 40,000 workers of Kanpur live in *ahatas* which are about 200 in number. Here small dingy huts have been built by private landlords making handsome money out of the poor working class. The Kanpur Labour Enquiry Committee, 1938, speaking about housing conditions in *bustees* and *ahatas* observed as follows:—"Most of the workers have to live in slums locally known as *ahatas*, where small dingy rooms are let out on exorbitant rents. Most of these *ahatas* are extremely insanitary and over-crowded and lack adequate sunshine and ventilation, to say nothing of water, light and conservancy. Quite a number of huts are under the street level. The conditions under which men, women and children in their thousands—about 40,000 souls—live in these *ahatas* are indescribable. The space within each tenement where the worker with his family lives, often numbering 8 to 10 persons, is smaller than the space we usually have in our bathrooms. An animal specially if it be a horse or a cow is given more room than the poor workers. A night visit for a stranger to these areas is a positively risky undertaking a sprained ankle is almost a certainty while a broken neck by stumbling into a blind well, or a goodly sized hole, would not be an impossibility. Even the elementary service of public lighting is denied to these people. As for drainage and water supply, such luxuries are thought to be superfluities."

According to the 1921 census the population of the city was 219,189 persons which is now more than three times. In 1931 62.5 per cent of the families lived in one room tenement and the density of population was as high as 1,229 persons per acre. The findings of the census were a danger signal that the town even at that time had grown into a fairly congested place. But the tide of industrial expansion did not care for this warning. The Kanpur Labour Inquiry Committee commenting on industrial housing said: "The entire situation is inequitous. It should not be permitted to continue a day longer than possible." Between 1929 and 1938 while the number of factories in Kanpur increased by 26, the average number of workers daily employed went up by 23,663. Between 1939 and 1943, the number of registered factories at Kanpur went up from 96 to 158 and the average daily number of persons employed also increased from 56,280 to 103,645, an increase of over 83 per cent within four years. Then came the second World War, which greatly raised the tempo of industrial activity in the city. By 1945, there were 178 factories employing on an average 116,508 workers per day which has still further risen. The total population of the city, according to food census, had swollen to 743,755 persons leading to more congestion and squalor in the workers' houses. The population to-day is still larger, in the neighbourhood of eight lakhs.

In pursuance of the recommendations of the Kanpur Labour Enquiry Committee, 1938, the Bureau of Economic Intelligence of U. P. conducted a general enquiry into housing conditions of workers living in *ahatas* in 1938-39. The Committee investigated 1,421 families. Out of these 64.6 per cent lived in one room tenements, while 31.3 per cent in two rooms, 3 per cent in three rooms and only 1 per cent in more than three. The average size of these rooms was 11.4′ × 8.5′ × 10.2′. The area of the room on an average was 96.9 square feet with a capacity of 988.4 cubic feet. 70 per cent of the rooms had only one door each and 25 per cent had two doors each. In as many as 69 per cent rooms in two-roomed dwellings, 57 per cent in three-roomed dwellings and 39 per cent in four roomed dwellings, the only door was the common door. The most common size of doors was 6 ft. × 3 ft. Ventilation in these rooms was hopelessly inadequate, 92 per cent being without windows. Verandahs were available to 59 per cent of families living in one-roomed dwellings and to 25 per cent of families living in two-roomed houses. Courtyard was not available to 73 per cent of families living in one and two-roomed dwellings. Construction of these houses was also very poor. About 73 per cent of rooms had *kutcha* floors. Nearly 40 per cent of the dwellings had *pucca* roofs, while in the case of 32 per cent rooms, the roof was either tiled or tinned. Again privacy was affected in a number of dwellings either by verandahs and courtyards being open to view from neighbouring house-tops or as a result of unsuitable doors and common share of dwellings. Only 7 per cent families had private taps for water supply and 46 per cent took their water from public taps. Nearly 50 per cent families drew their water from wells, each one again serving, on an average, 105 families or 313 persons. Many of these houses were deprived of even ordinary lavatory arrangements. Only 19 per cent of the families had private latrines. The rest used public latrines each of which had on an average pressure of 297 families or 761 persons. Nearly 52 per cent of the families consisted of 3 to 6 persons each, though families consisting of 7 to 12 persons each were not uncommon. Judged by the I. L. O. standard, 69 per cent of the persons covered by the inquiry lived in overcrowded dwellings. If the room area of 40 square feet is taken as the minimum requirement for an adult, 64 per cent of one-roomed dwellings and 58 per cent dwellings in all were overcrowded. To sum up, every thing in labour *bustees*—roads, drainage, sanitation and ventilation—leaves much to be desired. Squalor, dirt, filth and stench are common in all the *ahatas* where even latrine accommodation is either nil or deficient. It would be flattering to call these slums as " workers' houses" for dingy, dilapidated *kothris* with *kutcha* floors and leaky roofs accommodating 10 to 12 persons each can hardly be so described. No wonder, therefore, that these *ahatas* form the nuclei for starting epidemic diseases. The Gobardhana *ahata* in Luchmanpur area, for example, is notorious for its underground cells. The average cell is made of mud and roofed with *khaprail* and is badly in need of repairs. The only access to it is a hole-like door 3½′ × 2½′ which cannot be entered without twisting the body and bowing down. Its floor is at least 3 to 4 feet below the surface of the street. The *kutcha* uneven floor is full of holes and in one corner are earthen pots, scrap tins and other odd belongings of slum dweller heaped together, while in another there are small babies, grown up men and women squatting almost on one another.

According to the Royal Commission on Labour 3,100 quarters had been provided by the employers. The Kanpur Labour Enquiry Committee stated that altogether the accommodation provided by employers consists of about 3,000 tenements which house about 10,000 persons. In the opinion of the Committee the houses built by the employers were much better in comparison with the dwellings of the workers in the *bustees*. Not only are their rents moderate, but they are spacious, well built and their sanitary conditions were far superior to those prevailing in private labour *bustees*. Prominent among the employers' settlements, according to the Committee, were MacRobertganj Settlement, Kakomiganj Settlement, Allenganj Settlement, Elgin Settlement and Maxwellganj Settlement.

MacRobertganj Settlement has 802 houses out of which 655 are single quarters, 105 double quarters, 30 double (superior) and 12 bungalow type quarters. The total number of workmen residing is 937 while the total village population is 3,084. The average size of single quarter is 12′ × 10′ with a verandah 10′ × 6′. The rent of a single quarter is Rs. 1/4/- per month, for double quarter Rs. 4/8/- per month, for double (superior) Rs. 8 per month and for bungalow type quarter Rs. 16 per month. In Allenganj Settlement 1,102 workers are housed in 853 houses. The total village population is 3,472. The 72 single quarters with the lowest rent measure 10′ × 8′ with a verandah 8′ × 5.3′ ; the other 700 single quarters have in addition a courtyard measuring 8′ × 6′. The rent varies between Rs. 1/2/- to Rs. 17 per month.

In Kakomiganj Settlement there are 319 houses out of which 310 are single quarters. The total village population is 1,000. Of the single quarters, there are 165 measuring 9′ × 9′ with a verandah 9′ × 5.4′ ; 11 have in addition a courtyard 10′ × 9′ ; 61 have rooms 9′ × 9′ and verandah 9′ × 8′ ; 63 have built in verandahs, fitted with doors ; and 10 of similar construction also have courtyard measuring 18.6′ × 9′.

The Elgin Settlement is situated on the banks of the Ganges. The total number of quarters is 156. They are of three kinds—a room with a verandah at Re. 1/2/- per mensem; a room with a verandah and a walled courtyard with door at Rs. 1/8/- ; two rooms with a verandah and a courtyard with door at Rs. 3/8/- per mensem. The flush latrines are provided for both men and women.

In Maxwellganj Settlement the total number of quarters is 104. The Settlement consists of three types of quarters. The 'A' type house has two rooms, a verandah and a storeroom with wall shelves, a *pucca* cooking place, a walled courtyard with door and a two-seated latrine. The rent is Rs. 6/8/- per mensem. The 'B' type is the same as 'A' but only one room. The rent is Rs. 3/4/-. The 'C' type has only one room and a verandah. The rent is Rs. 2/8/- per mensem. The roofs of 'A' and 'B' types are flat and cemented. There is water tap and a two-seated latrine for each quarter. The quarters are also provided with electric lights.

In spite of the very appalling housing conditions no heed was paid to the problem by the State. Only in 1943-44, the Government made an inquiry into the extent of housing facilities provided by 32 leading factories of the city and the results of this inquiry were alarming. Out of 1,20,000 workers, who were at that time employed in these factories, only 6,465 were housed by the employers. Towards the fag end of the war the Improvement Trust constructed 2,400 quarters in the Juhi area. This was comprehensive scheme aiming at the development of almost a barren place into a new neat town which could accommodate ten to twelve thousand persons. There are 10 units of 240 workers' quarters each. Each unit comprises 10 residential blocks, each of 24 quarters, 2 sanitary blocks, each of 12 seats 4 bathing blocks with a shed, platform, bathing rooms, taps etc., sewers and internal roads, all self-contained. Each residential block has 12 quarters on the ground floor and 12 quarters on the first floor. The ground floor quarters contain one living-room, one verandah-cum-room with a fire place and a courtyard all of which are 12 ft. × 9 ft. approximately. The quarters on the first floor contain one living room 12 ft. × 9. ft., one verandah 12 ft. × 7 ft. and one courtyard 12 ft. × 7 ft. The work was started almost from a scratch and entailed the construction of long roads, laying down of underground sewers and setting up of street lights. Different types of quarters with lot of open space have been built up and are available to workers on moderate rents.

Even earlier the Kanpur Improvement Trust had a scheme to build a limited number of workmen's quarters every year. These were transferred at cost price to the Elgin Mills, the Kakomi Co-operative Housing Society, the Municipal Board and to individual workers. The accommodation in the quarters built by the Trust varied as the time progressed. The earlier designs comprised a room (100 to 120 sq. ft.) a verandah (about 80 sq. ft.) and a courtyard with a small kitchen. Later designs of quarters constructed since 1934 comprised a living room (100 to 120 sq. ft.) back room, a verandah (about 80 sq. ft.) and an independent hand-cleansing latrine. These quarters have all been built back to back in rows of 20 each. The structures were constructed of brick and mud, with R.C.C. slab roofs but the floors were all *kutcha*. Two adults or one family comprising husband, wife and three children resided in each quarter before the war. The number of inmates has doubled or trebled since 1939. The difficulty of water has now been removed to a considerable extent by the construction of tube wells. The area is far away from the city. In the absence of new houses, the burden of providing shelter to the expanding industrial proletariat during the war period fell on the slums of the city. Human beings flocked in the *ahatas*, where every room, verandah, courtyard, kitchen (if any), every nook and corner was packed with as many persons as possible. When living space was so rare, it was fortunate for a worker to get entry into a slum and share it in shifts with others. In the *ahatas* congestion increased, pressure on latrines mounted up, long queues for water taps became an everyday phenomenon, and large masses of industrial workers lived and slept on the street. It was impossible for them to huddle into the common billet and enjoy the privilege of a ceiling above their head ! This abnormal accumulation of persons had disastrous effects on the health and family life of the workers.

The war did not only make the workers' homes more unhealthy and congested, but it also boosted up their rents. In the general inflationary conditions, rents of buildings soared skyhigh during the war period, but in the case of the working class their burden was much heavier owing to their exceptionally limited purchasing power. In 1944, 1948 and 1951 the Kanpur Labour Office made an inquiry into the rents paid by the workers in different localities. The results of this inquiry are given in the following table:

Area	Average rent before the war			Average rent in 1944			Average rent in 1948			Average rent in 1951		
	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	As.	Ps.
Juhi	1	15	2	2	5	7	3	13	4	4	2	10
Deputy Ka Parao	2	3	3	2	11	1	3	4	7		...	
Chamanganj	3	6	1	3	12	4	4	15	1		...	
Jarib Ki Chowki	2	7	9	3	2	7	4	0	4		...	
Gwaltoli	2	9	4	3	2	6	4	8	0		...	

As elsewhere so in Kanpur, tenants had to pay fabulous rents for their houses. Those who had occupied the buildings before the war were legally protected, but instances are not wanting when landlords compelled their tenants, especially poor workers, even through force and coercion, either to pay more rent or quit the house, for new comers—and their number as we have shown was considerable—it was impossible to get any accommodation without paying exorbitant premiums over rents. Despite the Rent Control Order, there was large scale black-marketing in houses and it took the usual forms of *Nazrana*, *Pagri*, etc. It can be said that rents have generally increased by 100 to 150 per cent.

In the year 1945, the State Government constituted a Development Board, known as "The Kanpur Development Board". The Board devotes itself to the following so far as the industrial housing is concerned:—

(*i*) provision of land to industrialists for building houses for their workers;

(*ii*) provision of small size plots to labourers at concessional rates and on easy instalments:

(*iii*) construction of houses to be given on hire purchase system to the workers;

(*iv*) construction of houses for labour class to be given on low rents; and (*v*) preparation of schemes and plans for labour housing in Kanpur.

The Board has constructed 2,500 houses. Out of these 100 were constructed before the World War II and they were given on hire-purchase system to the workers. Another 2,400 houses were constructed during the years 1943—1946. The Board constructed another multi-storeyed building with 33 double room units for the sweeper families who had been dehoused in execution of some schemes of the Government. In addition to these, the Board constructed a small colony for water works employees consisting of 113 quarters. All this, however, is not quite sufficient and a scheme for the construction of 2,000 quarters is under consideration. According to the present need if the Board undertakes to construct 3,000 quarters a year, it will take 17 years to build the necessary number of quarters. Making allowance for normal increase in population, however, the period can safely be put at 20 years.

The Board was also asked to take up the slum clearance and the improvement of the *ahatas*. The Board has taken up this work and the Kalicharan, Sakera Estate, Rameshwari Devi, Momriwala, Rameshwarka, Haddi Godam *ahatas* have been chosen first to be developed. The work of laying surface drains, internal paving and provision of latrines has been completed in most of these *ahatas*. The Board has also submitted a draft Act to the State Government, which is on the lines of the British Slum Clearance Act, for tackling the problem more effectively. In fact the Board had been making persistent efforts for the last four years to solve the problems of slum clearance and asking the Government for substantial grant for implementing their labour-housing scheme as that was the only constructive way to clear the slums. But due to financial stringency, it was not possible for the Government to provide adequate funds. They could, therefore, only resort to the cleaning of the *ahatas*. This could only mitigate the hardship to a very limited extent and could not at all meet the needs of the situation.

The Board at the instance of the Railway Board, drew up a scheme known as "The Railway Colony Scheme." This scheme has been greatly appreciated and the Posts and Telegraphs Department have now sought the help of the Board in setting up a colony for their employees.

The Board have also approved the Narainpur housing scheme of their Town Planning Committee for providing houses to middle class people. According to the scheme, such persons as do not own any property or house within the Municipal and Cantonment limits of Kanpur, would be entitled to a house built on a 200 sq. yard plot. The house will consist of three rooms measuring 14' × 10', 13½' × 10' and 10′ × 8′, flush latrine and a bath room. The cost would be approximately Rs. 8,000. Out of this amount, Rs. 3,000 would be payable on application, Rs. 2,500 on allotment and the balance in six-monthly instalments with 6 per cent interest. Those who pay lumpsum would be given preference and will get a rebate of Rs. 250.

Only very recently the U. P. Government commissioned its Town and Village Planning Department also to carry out a civic survey of the present conditions of the *ahatas* and slums in Kanpur. The primary object of the survey was to review the existing socio-economic conditions and to recommend steps necessary to provide workers' families with habitable housing in the city. The survey was also conducted to secure information that would help in determining the most convenient and economical housing scheme, which would be welcomed by workers, by Government and by the industrialists as well as by humanitarian citizens at large.

The Department issued a questionnaire inviting information on the type of accommodation, number and size of the existing rooms, size of their families, monthly income, accommodation desired and rent they are willing to pay. A survey of 44 *ahatas* was carried out on a sample basis and about 2,000 workers interrogated.

As a result of this survey and its analysis, it is felt that a housing scheme for workers must have the following features:—

1. It should be less than one mile from the factory.
2. A family unit should have a minimum of two rooms.
3. 31 per cent of the units in a labour colony should be planned for single persons ; the rest for families.

The Department is also of the view that considering the social, economic and other factors of the national policy, the industrial housing design should also incorporate the following features :—

1. There must be privacy in the design.
2. There must be enough shops to meet the daily buying needs of the people.
3. There must be one elementary school for children for every 700 workers' houses.
4. There should be enough play areas for children.

5. There should be modern amenities of life.

6. The general layout and standards should be conducive to health, safety, moral and general welfare of the workers.

The State Government have been taking prompt action to start an Industrial housing programme and the Government of India sanctioned a loan of Rs. 75,00,000 to the State Government for this purpose. It is understood that a major portion of this amount will be spent in Kanpur where the slums require immediate clearance and have been criticised by one and all, including the Hon'ble Prime Minister.

Out of this sum of Rs. 75,00,000, Rs. 50,00,000 were advanced as interest-free loan and the balance will carry an interest at 4½ per cent per annum. The State Government will also consult the Government of India in their construction plans.

Under the Government of India's latest "Subsidy and Loan Scheme," the State's requirements have been placed at Rs. 2 crores and it is expected that about 1½ crores out of this will be available for Kanpur alone. This grant will go a great way in solving Kanpur's problem of slum clearance. The Board has appointed an *ad hoc* Committee of official and non-official members to formulate details and estimates of expenditure for slum clearance and labour housing for submission to the State Government.

CHAPTER XX

WEST BENGAL

West Bengal like the rest of India is predominantly agricultural but the immense natural advantages in its situation on the bank of the mighty river system traversing its fertile and populous plains have made it the undisputed centre of the great jute, tea and coal industries. The existence of jute mills, of tea and jute cultivation, of busy traffic and a great part of coal mines have led to the establishment of engineering firms in or near Calcutta. There are also various miscellaneous factories, the most important being the flour and paper mills, tanning, pottery and pencil making and also many small power factories for oil milling and rice husking.

The following table shows the number of workers employed in 1946 in each of the major industry groups in undivided Bengal :—

Industry	Average daily number of workers employed
(*i*) Government and local fund factories	69,430
All other factories—	
(*ii*) (A) *Perennial*	
Textiles	338,303
Engineering	108,072
Minerals and Metals	27,322
Food, Drink and Tobacco... ...	33,827
Wood, Stone and Glass	17,247
Chemicals and Dyes, etc.	23,652
Paper and Printing	17,748
Gins and Presses	9,226
Skins and Hides	9,661
Miscellaneous	14,854
Total ...	5,99,912
(B) *Seasonal*	
Food, Drink and Tobacco... ...	26,947
Gins and Presses	9,538
Total ...	36,485
Total of (A) and (B) ...	3,36,397
Grand Total of (*i*) and (*ii*)...	7,05,827

Thus the total number of perennial factory workers in undivided Bengal in 1946 was 5,99,912 while the number of workers in seasonal factories was 36,485. Industry is concentrated in West Bengal and partition has not made much difference.

The most congested area in the State is Calcutta—an area showing the heaviest concentration of a million industrial workers. Besides having a large number of cotton, spinning and weaving mills, it is an important centre for the tanning and manufacturing of leather goods. A large majority of workers live in dark, damp leaky '*bustees*'—the conditions in which are appalling. Most of the houses are *kutcha* huts, with *kutcha* walls and floor and with roofs of thatch, corrugated iron sheets or tiles. The walls are generally made of earth or split bamboo plastered with mud. The height of these huts generally varies from 6 to 8 feet. The plinth height is about 9 inches and hence the floor is usually damp. A fair number of houses have plinths below the ground level. The size of a room including the socalled verandah is about 80 sq. ft. and it provides accommodation for 9 persons. The houses usually serve the purpose of kitchen and store room and the inmates find it more convenient to sleep out in the open in fair weather. Ventilation is highly unsatisfactory. The rooms are, as a rule, very poorly lighted owing to lack of windows and even where any small appertures exist, they are usually closed by the inmates in their desire to secure privacy. The size of a window or an opening is not more than 3 sq. ft. There is hardly any provision for kitchens. In 83 per cent cases, kitchens are located in the bedrooms.

A sample survey taken in Calcutta in 1948-49 revealed that the total number of people living in *bustis* was 7 lakhs. 92 per cent of these people live in single rooms ; the floor space occupied per head is not more than 23 sq. ft. 70 per cent of the people live in verandahs. 14 per cent of these houses have no latrines. As regards water supply 61 per cent of these houses have no protected water supply.

After an inspection of some of the *busti* areas of the city in January, 1945, His Excellency the Governor of Bengal was reported to have said :

"I have been horrified by what I have seen. Human beings cannot allow other human beings to continue to exist under these conditions. Who is responsible does not interest me, my interest is only that conditions should be improved and that neither politics nor vested interests should prevent this."

The houses provided by the employers are usually near the place of work. Most of these houses are built in back-to-back rows and consist of one room with a verandah in front in which cooking, and washing is done. In the better lines the space between the rows is paved with brick and drained. Windows and roof ventilation are also provided in some types, whilst artificial lighting has been extended to a number of lines. A large number of septic-tank latrines have effected immense improvements in conservancy and sanitation. Water supply is usually provided by the mills. A number of deep tube wells have been sunk, and in other cases water is pumped from the river and purified before distribution. The housing facilities provided by various industries are given below.

Jute mill quarters

The jute mill owners have also built what are called 'lines' or *pucca* houses generally of two storeys, the rooms being placed in a line back to back. Sometimes a narrow verandah is provided, but this hardly improves ventilation.

It is estimated by the Indian Jute Mills Association that the percentage of workers housed by individual mills varies from 7.9 to 100 and the total number of rooms and quarters supplied for this purpose comes to about 50,767. The houses provided are either *kutcha* or *pucca* and are usually of the back-to-back barrack type with a common verandah 3 ft. wide, a portion of which is used as a kitchen. The *pucca* rooms are built of bricks with roofs of beaten *soorki*, reinforced concrete or asbestos corrugated sheets. The *kutcha* rooms have mud plastered split-bamboo walls with tiled or thatched roofs.

The total area available per worker in these employers' lines varies between 29 and 79 sq. ft.—which is hardly adequate for an adult, far less for a whole family. Moreover workers living in these mill 'lines' often lease out a portion of the accommodation to friends or relatives; thus the congestion in these 'lines' is often as great as in the '*bustees*.' In the Ludlow jute mills in Chengail 30 per cent of the occupants in the coolie lines work in the neighbouring mills and the average number of occupants per room is 3.98. The Oriya workers seem to live more crowded together, showing 5.0 as the number occupying a room. A room in the coolie line is 9′ × 9′. Even in the new built coolie lines, there are inadequate bathing and latrine facilities. A typical instance is afforded by the Ludlow jute mills in Chengail where for 2,500 workers living in the labour lines only 56 taps for drinking and bathing water, 126 seats in the latrines and 40 urinals are provided. Tanks are met with in the jute mill villages and in times of an epidemic spread infection all round. Rents for single rooms in the *pucca* coolie lines vary from 8 annas to Rs. 1/4, 12 annas being the usual rate.

In 94 per cent of the cases, the floor space available to a worker and his family is less than 100 sq. ft. The rooms are badly lighted and ventilation is altogether inadequate. Owing to congestion, workers prefer to sleep outside on the floor or on cots, weather permitting. Arrangements for latrines and urinals are inadequate. In recent years some good housing colonies for jute mill workers have sprung up and one of the best is the Birla Jute Mill colony which houses about 43 per cent of the employees of this mill in *pucca* quarters numbering about 1,200.

Cotton mill industry

The industry as a whole appears to have made a considerble provision for housing its workers. Nearly 45 per cent of the workers have been provided with housing either free of charge or at a nominal rent. One of these concerns houses as many as 95 per cent of its total workers. Except for one mill which houses its workers in thatched huts, the housing provided is generally *pucca* with either tile or corrugated-sheet-roofing. These houses are generally of the barrack and coolie pattern and are generally one-roomed. There is considerable amount of over-crowding and congestion and the per capita floor space comes to about 30 sq. ft. only. The houses are badly ventilated. Sanitary arrangements are conspicuous by their absence and no arrangement seems to exist for drainage. There is an inadequacy of latrines and where they are provided they are mostly of the *kutcha* type and never maintained in a sanitary condition. Those living in these houses, if in the Calcutta area, get water supply from taps and from tanks and tube wells in the mofussil area.

Seven of the fifteen units charge no rent while the others charge a rent of about Rs. 1-8-0 to Rs. 2 per month.

Shellac industry

Housing accommodation is not provided by any of the employers. Workers mostly live in the adjoining private *bustees*, the monthly rent varying from annas 8 to Rs. 2 per room. These '*bustees*' are invariably congested. Details about the insanitary conditions in the '*bustees*' have already been given. Congestion in these ill-ventilated, insanitary and unclean huts in the *bustees* affects the health of the workers seriously.

Glass industry

The total number of workers employed in the 17 factories surveyed by the L. I. C. was 4,628, of which 762 or about 17 per cent were housed in employers' free quarters. Eleven factories with a full strength of 2,066 have accommodated 672, or, in other words, about 25 per cent of their workers free of rent. The usual types of houses are: (1) *kutcha*, *bustee* type houses accommodating 35 per cent of the total number of workers actually housed, and (2) *pucca*, generally barrack type buildings accommodating approximately 64 per cent. One employer, namely, the Glass Producers have rented two two-storeyed barrack type *pucca* buildings and a few huts in the *bustees* for accommodating their workers. The workers are accommodated on the top floor of the two-storeyed building, the ground floor being occupied by shops.

Housing in Plantations

Next to Assam, West Bengal has the largest area under tea in India. The area under tea in this State in 1942, according to Indian Tea Statistics, was 201,495 acres, *i.e.*, about 24 per cent of the total area under tea in India. The main tea growing areas in West Bengal are Jalpaiguri and Darjeeling districts, which had in 1942, 189 and 137 gardens and 131,748 and 63,227 acres under tea respectively.

The housing in plantations presents a gloomy picture, for workers have to live in small houses with low roof and insufficient light, walls of bamboo matting with mud plaster which fall apart after a short time, exposing the inmates to the blast of the chill wintry wind. In the Dooars, houses are built in barrack lines scattered all over the gardens. The houses are built in many cases on badly drained sites. The average size of a house is 225 sq. ft., one house being given to each labourer.

Houses in the Terai are similar to those in the Dooars except that they have practically no plinth. In Darjeeling, houses are built of wooden plank walls and corrugated iron sheet roof, but houses built since 1939 are of bamboo and mud walls with thatched roof as on the plains. The latter types of houses are preferred by the workers as they are more comfortable in winter. The floor is *kutcha* and gets very damp in the rains. The average height of the room is not more than 10 ft. This coupled with lack of ventilation makes the houses very dark and stuffy. Most of the houses are not constructed according to any plan but are built haphazardly. In the Dooars, the water supply is adequate and is either from *kutcha* wells or from pipes which carry spring water to the lines. Many gardens have provided concrete reservoirs in the lines for storing water. A few *pucca* wells are also found. Water supply is adequate in the Terai where 'Raniganj Ring' wells have been dug up near lines. In the majority of the gardens in Darjeeling no special arrangements have been made for supplying water to the workers who get it from the small springs that flow through their gardens. A majority of the gardens have no latrines in the Dooars. Many estates had built bore-hole latrines but they have fallen into disuse. There is a complete absence of proper drainage system in all the areas. (Detailed information has been given under the Plantation Chapter).

Coalfields

In Raniganj about 80 per cent of the workers are housed by the collieries. The housing is regulated by the bye-laws framed by the

Asansol Mines Board of Health. The workers' dwellings are known as *dhowrahs*. In all the *dhowrahs* there are brick holes for the ventilation purpose. The total number of *dhowrahs* available is 4,537. They are classified as Arched roof, *Pucca* flat roof, Country tiles, Tin shed, Straw thatched, Raniganj, Corrugated iron sheet roof, Asbestos cemented sheet roof, Corrugated iron sheet roof and walls *dhowrahs*. The categories 'Arched roof' and 'Country tiles roof' constitute the largest numbers, 1,482 and 2,001 respectively. The number of persons per room varies from 4 to 10. In most cases the water supply is from wells or tanks. There are no sanitary arrangements.

CALCUTTA

Next to Bombay and Kanpur comes Calcutta—an industrial area showing the heaviest concentration of approximately a million industrial workers. Many mill towns and villages have grown up in this area on an unprecedented scale. While there was rapid development of industries, no attempt was made to provide housing facilities for the workers.

Over a million people live in dark, damp, leaky huts in *bustees* which are about 4,940 in number covering an area equal to one third of the city. These *bustees* are unplanned muddle of single rooms or huts which are usually built *en masse* so as to utilise the available space to the utmost extent. Here little or no consideration is given to the amenities of life and every available foot of land has been gradually built upon until the degree of overcrowding and congestion is probably unequalled in any other industrial area in India. The Administration Report of 1868 of the Corporation of Calcutta gave an apt description of the *bustees* in the following words :—

" A *bustee*, or native village generally consists of a mass of huts constructed without any plan or arrangement, without roads, without drains, ill-ventilated, and never cleaned. Most of these villages are the abodes of misery, vice, and filth and the nurseries of sickness and disease. In these *bustees* are found green and slimy stagnant ponds, full of putrid vegetable and animal matter in a state of decomposition, and whose bubbling surfaces exhale, under a tropical sun, noxious gases, poisoning the atmosphere and spreading around disease and death. These ponds supply the native with water for domestic purpose and are very often the receptacles of filth. The articles which feed these tanks are the drains that ramify over the villages and carry the sewage of the huts into them. Their position is marked by a development of rank vegetation. The entrances to these *bustees* are many, but are not easily discoverable, whilst the paths are so narrow and tortuous that it is difficult for a stranger to find his way through them. The huts are huddled together in masses, and pushed to the very edge of the ponds, the projecting eaves often meeting one another, whilst the intervening spaces, impervious to the rays of the sun, are converted into urinals and used by both sexes in common. In these huts often live entire families, the members of which occupy the single apartment of which it is not infrequently composed and in which they feed and sleep together, the wet and spongy floor with a mat spread on it serving as a bed for the whole family. None of these villages possesses a single road or thoroughfare, properly socalled, through which a conservancy cart or even a wheel-barrow can pass in order to remove the filth. This filth is laid at the door of every hut or thrown in a neighbouring cesspool."

Even in 1922 Dr. R. K. Mookherjee in his "Principles of Comparative Economics" referred to a Calcutta *bustee* and remarked: "In a *chamar bustee* in Mechuabazar, Calcutta, which I visited, I witnessed overcrowding which is perhaps among the worst on record. The *bustee* is divided into several unequal and unsymmetrical blocks. The ground space of each block is rented from the Zamindar by a sub-lord, who erects the dingy close-built *bustees'* huts, collects the rents from each of the huts of the block and after handing over to the zamindar the rent of the ground space, appropriates the surplus. Thus in one of these blocks, which measures 18 feet in length and 15 feet in breadth, there is an overcrowding of 7 adults, 6 women, 3 boys, 6 girls. The rooms are constructed so as to utilize the ground space to the maximum and yield the highest amount as rents, without any reference to the drainage and ventilation. Each of the rooms earns a rent of Re. 1 to Rs. 2-8. In the block in question there are six rooms. The rooms vary a little in size. The mean size is 9 feet long, 6 feet broad and 5 feet high. In each room there is a cot and a rack, and I find one or two ovens in addition. The room is very dark and even in the day time the things cannot be seen without lamp. In the particular block there is an open space of 3 sq. ft. in the centre, where utensils are scoured. On one side I find also a cot. There is also a Tulsi plant in a tub, but placed on a bamboo roof. Some of the blocks have no privy attached to them, a few blocks sharing privy in common."

It is deplorable that no appreciable change has taken place in these *bustees* during the last three quarters of a century. These single room huts which have been given the respectable name of 'houses' are dark and dingy hovels, 8 × 6 to 10 × 8 feet in size which are built back to back with no arrangements for drainage. Rent for these single room huts varies from Rs. 2 to Rs. 6, the usual rate being Rs. 2-8. The latrines, if they exist, are too few and filthy so that men, women and children have to use the drains and open fields at a distance. As mentioned earlier, H. E. the Governor of

Bengal after an inspection of some of the *bustee* areas in 1945 was horrified to see their deplorable conditions.

Jute mill quarters

The jute mill owners have built *pacca* houses generally of two storeys, the rooms being placed in a line back to back. No provision has been made for ventilation in these houses.

As already mentioned the percentage of workers housed by the industry varies from 7.9 to 100 and the total area available per worker varies from 29 to 79 sq. ft. This area is quite insufficient even for one person what to say for a family. In recent years, however, some good housing colonies for jute mill workers have sprung up, and one of the best is the Birla Jute Mills Colony which has about 1,200 quarters. Full details are given under 'Jute Industry.'

Cotton textile mills quarters

It is estimated that 45 per cent of the workers have been provided with housing. The houses provided are *pucca* with tiled or corrugated iron sheet roofs. They consist of one room tenements built in barracks without proper ventilation. Arrangements for water and sanitation are wholly inadequate. There is a considerable amount of overcrowding and congestion in these houses; the *per capita* floor space comes to about 30 sq. ft. Many mills do not charge any rent but others charge from Rs. 1-8 to Rs. 2 per month.

Port Trust quarters

Nearly 40 per cent of the workers employed by the Port Commissioners are provided free quarters. All the quarters are for single man and comprise single rooms and a verandah. The rooms are built in lines or back-to-back tenements. These are *pucca* structures with brick walls, tile or corrugated iron sheet roofs and cement floors. The average floor space per room is about 45 sq. ft. Light and ventilation are fairly good. So are arrangements for the supply of water and sanitation. But there are no bathrooms in these quarters which are generally within a mile of the place of work.

Tanneries and leather goods factories

Calcutta is one of the important centres of large scale tanning industry. Apart from its advantages in respect of enormous quantities of raw hides and skin Calcutta owes its prominence in the tanning and leather goods industry to its choice as the centre for Bata Shoe Factory. In 1944 there were 8 regulated tanneries and leather goods factories employing 9,410 workers. In Calcutta three tanneries provided free housing for 19 %, 8 % and 8 % of their employees including *darwans* respectively. The ventilation and up-keep are very unsatisfactory. Bata Shoe Factory has provided *pucca* houses at a nominal rent for 25% of their employees. The condition of the houses is among the best found anywhere in Calcutta. Workers not provided for by their employers live in *bustees*, the conditions of which are appalling.

Dockyards

Calcutta has the following ten dockyards, the first six being important:—

1. Garden Reach Workshop
2. Indian General Navigation and Railway Company.
3. Port Trust.
4. Shalimar Works.
5. Hooghli Docking and Engineering Company.
6. Port Engineering Works.
7. Ganges Engineering Works.
8. Howrah Trading Company.
9. R. B. Rodda and Company.
10. Calcutta Landing and Shipping Company.

The total employment in all the dockyards was 7,902 in 1944. The majority of workers of the dockyards live in the *bustees* of Howrah and Sibpur where living conditions are worse. Only three dockyards have provided housing accommodation to a small proportion of their labour force. The Indian General Navigation and Railway Company have constructed four *pucca* lines of quarters, each consisting of one room. Each room is provided with one window and one door. Howrah Trading Company have housed 40 per cent of their workers. The rooms are *kutcha* with tiled roofs. Each room has one door and a window.

Tram and Bus Services

The Calcutta Tramway Company provides employment for about 8,000 workers, both skilled and unskilled. The Company has not made adequate arrangement for housing its workers and as such the workers live in rented houses and *bustees* scattered all over the city. The Company has, however, rented 13 large buildings in which a very small proportion of staff has been housed. There are only 13 bus services in the city. The bus owners also have not provided housing accommodation. The drivers and conductors live in dark and ill-ventilated quarters.

Recent housing progress in and nearabout Calcutta

The pre-Partition Government had the idea of developing the U.S. Army Base near Kanchrapara into a model town for the purpose of drawing off the surplus population of Calcutta. Ten thousand acres of land are now available for development as a model town with roads, sewerage, water works, electricity, etc. Up to the middle of 1948, progress was slow, partly because of lack of requisite technical staff, but now the area has been developed and named as Kalyani. The township is 38 miles north of Calcutta and is connected to the city by rail, road and river. A railway station bearing the name Kalyani has already been opened here. The township is divided into six blocks and comprises an area of more than 10,000 acres of land with green belts round the town having Bhagirathi on its eastern side to present a pleasant and soothing outlook to its future residents. The total estimated cost when all the six blocks are fully developed would come to about Rs. 11.37 crores. The work is now in progress in one block comprising 1,100 acres at an estimated cost of Rs. 2 crores. The sale proceeds of plots in each block is estimated to bring about Rs. 125 lakhs. Most of the plots for residential and business purposes have already been sold and are being sold in the first block that is now under development and it is expected that the possession would be given to the first settlers before the end of the current year (1952). About 80 per cent of the work of building roads, laying sewer and water pipes, electrification and raising and levelling of the ground has been completed in this block. Government have so far spent about a crore of rupees on the purchase of machinery, making of roads, sinking tube wells and on building pumping stations and reservoirs.

This township is conceived as a self-sufficient and self-contained planned city possessing all the elements, social and economic, required for modern urban life. The demand for its growth and existence is every day and every hour emphasised by the tendencies on the part of the people to spread out of awfully congested Calcutta. It is vividly realised, however, that the birth of a town, whether it is naturally grown or planned, is both the work of man and also the creation of time. Several factors arising from the working of a whole host of economic and social causes, contribute materially to the birth of such cities. The automobile transport of the present century, in addition to other factors seen operative in the past, has further affected the birth and complicated its growth. All these factors are found present here also to retard the growth of this township. In spite of the best efforts on the part of the authorities to make Kalyani as an autonomous town, it will remain as a satellite town of Calcutta for some time till the area reserved for industrial purposes is fully developed and industries established to offer employment to the inhabitants of the town. Till this is brought about, the people will have to go and come from Calcutta where they are working. The present conveyance arrangements by rail and bus are not economical or satisfactory for the middle class people for whom mainly this town has been established.

The residential and commercial zones of each block are demarcated rigidly and therefore the picture that unplanned Calcutta presents in not observing this restriction would not bring the chaotic state in the planned town of Kalyani. The development of this city with a very bright future will, however, depend mostly on the conveyance (rail, river and road) facilities to be provided by the authorities.

In addition to this, in order to relieve, to some extent, the acute house shortage in the city, Government decided to undertake a modest housing project for the purpose of providing accommodation to people of the poorer and the middle classes in Calcutta. The scheme includes—

(*a*) Houses for the lowest income group ;
(*b*) houses for a slightly higher income group who can pay an economic rent ; and
(*c*) houses for the next higher income group who would like to own, and are in a position to build their own houses, if provided with land at reasonable prices.

Government have already started constructing five blocks of buildings on one plot of land. There will be 62 independent two-room flats and 10 independent three-room flats and 12 shops. The flats are meant for the poorer middle classes and rents will be moderate compared to the prevailing rates. Arrangements are nearly complete for starting construction of two other blocks of buildings on another plot of land in the same area. There will be three types of accommodation in these two blocks and they are meant for the poorer classes who cannot pay an economic rent. There will be 18 single-room flats with attached bath and kitchen, 24 single-room flats with attached kitchen but common baths, and 14 single rooms with common kitchen and bath. The first will provide family accommodation, the second may be used as chummeries by bachelors and the third may be used as dormitories by single men of the working classes. The rent will be small and within the paying capacity of working class people. Another plot of land in the same area has been divided into seven smaller units of 4 to 5 *cottahs* each. They will be sold or leased to deserving candidates at a reasonable price and on certain terms and conditions.

The object is to provide better housing accommodation for poor class people on rents which they can afford to pay and also for middle class people on economic rent. It is further proposed to acquire lands suitable for housing accommodation and to sell them out in smaller plots on some profit, the profit being utilised towards construction of housing accommodation for poor class people.

Land acquisition proceedings in respect of three plots of land in the Entally area and another site in the Lake area in Calcutta were started in 1947-48. The State Government have built at a cost of rupees 13.62 lakhs residential blocks with 72 flats in the Entally area of Calcutta for accommodating middle class families of moderate means at reasonable rents. 35 acres of land have also been acquired in the Tollygunge area on the south of Calcutta which are being developed at an estimated cost of rupees 21.12 lakhs to be leased out for construction of residential buildings on Government approved plans.

Unlike Bombay, West Bengal Government however could not make much headway, excepting what has been stated above, in the sphere of industrial housing because of the various difficulties confronting the State Government as a result of the partition of the country. When the Congress Government came into power in Bengal after the partition, the immediate problem before them was to find accommodation for about 3 millions of uprooted persons. Whatever houses were constructed by the Improvement Trust and the like bodies were occupied by the refugees and it was very difficult to oust them without providing alternative accommodation.

Moreover, there is no statutory Housing Board and the Calcutta Improvement Trust, to all intents and purposes, is functioning as a housing board in so far as the clearance of slums and the construction of houses for the low income groups are concerned. With the Trust's multifarious activities, therefore, it is not surprising that the conditions remain quite unsatisfactory in this regard. Under the Government of India's Subsidy scheme, however, the State Government's demand has been put at one crore of rupees and it is expected that 2,000 new tenements will be constructed in Calcutta and other industrial areas in addition to the slum clearance schemes to be undertaken.

CHAPTER XXI

HYDERABAD

In Hyderabad State the Kothagudium, Tandur and Sasti collieries have provided 4,000,2,249 and 650 houses respectively. The percentage of industrial workers in the State provided with housing is 7.1. A statement showing the number of workers employed, houses provided etc., by large industrial concerns in the State is given below :—

Serial No.	Name of the concern	Average No. of workers employed.	No. of houses provided.	Rent charged per month.	Percentage of workers housed to total No. of workers employed
1	2	3	4	5	6
				Rs.	Percent
1	Osmanshahi Mills, Nanded	4,004	666 Qrs. 800 Huts	4 and 2	35
2	Azamjahi Mills, Warangal	3,189	600	6 to 12	10
3	Aurangabad Mills ...	1,049	142	As. 10 to Rs. 5	20
4	Aurangabad Silk Mills ...	200	102	2	32
5	Praga Tools Corporation, Secunderabad.	276	24	6 to Rs. 6/8/-	9
6	Allwyn Metal Works, Hyderabad.	854	204	*Nil*	23
7	Nizam Sugar Factory, Bodhan.	2,300	863	*Nil*	50
8	A. C. Shahbad	2,746	487	Free	18
9	Hyderabad Chemical & Fertilisers Ltd. Bellampalli.	100	119	*Nil*	51
10	Taj Glass Works, Hyderabad.	920	59	*Nil*	10
11	Kohinoor Glass Factory, Hyderabad.	655	32	*Nil*	...
12	Deccan Flour Mills, Aurangabad.	62	23	2	...
13	Sirpur Paper Mills, Kagaznagar.	1,434	720 (Houses) 1,800 Huts.	*Nil*	50

In addition to the above, houses have been provided for industrial workers by Government and by municipalities and railways for their employees. Various types of houses provided by different concerns are single storey quarters with 2 rooms constructed by the Osmanshahi and Azamjahi Mills, 142 quarters with 2 and 3-roomed tenements by the Aurangabad Mills, quarters, having 2 rooms, kitchen, bath, etc., constructed by the Nizam Sugar Factory, and barrack-type and other type quarters constructed by the Singareni, Tandur and Sasti collieries.

The major causes of shortage of adequate provision of houses to the workers are:—

(*a*) absence of legislation requiring the employers to provide houses to workers employed by them ;

(*b*) rapid growth of urban population in post-war years ;

(*c*) high prices of building materials; housing of workers has been the responsibility of the employers in the State so far and the local bodies have not been in a position to help them in this matter ; and

(*d*) no action has been taken by the workers to provide their own housing.

There is acute shortage of housing accommodation for industrial workers in the Hyderabad State. According to the latest statistics, there are 803 factories, but this number will be doubled after registration of factories under the Indian Factories Act, 1948. It was therefore, proposed to make a beginning in the Hyderabad State with a short term programme of about 2,000 houses to be constructed at various places, such as, Mushirabad, Bren Gun Factory Area (Hyderabad), Warangal, Aurangabad, Gulbarga, Latur, Nanded, and Jalna.

As the total capital cost was estimated at Rs. 60 lakhs, an informal request was made to the Government of India to provide Rs. 34 lakhs a year on loan. On an indication from the Government of India that it would not be possible to allot such a large sum for Hyderabad State, the cost of the scheme was cut down to Rs. 30 lakhs and the State Government agreed to lend Rs. 10 lakhs, that is, one-third of the total cost. The Government of India sanctioned an interest-free loan of Rs. 20 lakhs and the State Government agreed to advance an additional loan of Rs. 10 lakhs for the financial year 1951-52.

Establishment of an Industrial Labour Housing Corporation is also under the consideration of the State Government.

CHAPTER XXII

MADHYA BHARAT

Madhya Bharat, especially the Malwa Plateau portion of it, contains rich black cotton growing soil, and so textile industry has grown magnificently in the cities of Indore, Ujjain, Ratlam, Dewas, Mandsaur and Gwalior. There is a Government Engineering Works at Gwalior and the Banmore Cement Factory belonging to the Associated Cement Company, situated about ten miles from Gwalior.

There are seven cities in Madhya Bharat, which have a sizeable population of perennial industrial workers, a considerable proportion of which is covered by the Provident Fund Act. The following statement shows the number of such workers in the different cities:—

Name of City			1951 Population	Number of Industrial workers	Number of employees covered by Provident Fund Act
1. Indore ...	...	...	3,10,859	29,249	24,726
2. Gwalior	...	...	2,41,577	12,288	8,053
3. Ujjain ...	...	...	1,29,817	8,940	8,028
4. Ratlam...	...	...	63,403	2,934	2,124
5. Dewas ...	...	...	27,879	1,125	810
6. Mandsaur	...	...	34,541	1,103	249
7. Banmore	...	...	...	1,110	1,110

Since the formation of Madhya Bharat, the Government took in hand the development of two housing sites at Indore, at Sukalia measuring over 300 acres at a cost of about Rs. 8 lakhs and at Khajrani measuring 130 acres at a cost of Rs. 3 lakhs. The former area has already been parcelled out into 2,000 blocks, while on the latter houses are going to be built from out of the funds collected by the employers in accordance with a plan being worked out by the State Labour Department.

There are 3 commercial undertakings owned and run by Madhya Bharat Government at Gwalior, the Gwalior Engineering Works, the Leather Factory and the Pottery Works. Together they employ about 1,100 workers and Government has been very keen on developing a scheme of housing for the benefit of these workers. Rs. 40 lakhs have been collected by the mill-owners of Indore and Rs. 10 lakhs by the mill-owners of Ujjain for financing labour housing schemes. A Co-operative society of industrial workers for the promotion of housing has been formed at Ratlam and are expected to be constituted in other cities also.

Town Improvement Boards, which are in fact housing boards, are functioning in Indore, Gwalior, Ujjain, Ratlam and Mandsaur. Their function is to develop and distribute housing sites. The financial resources of the Boards are, however, limited.

Under the subsidized industrial housing scheme of the Government of India Madhya Bharat Government is proposing to make 5,000 houses at Indore, 2,000 at Gwalior, 800 at Ujjain, 500 at Ratlam, 300 at Dewas, 500 at Mandsaur and 450 houses at Banmore over a period of 4 years. The total expenditure on these schemes will be Rs. 279 lakhs. This will be raised as follows:—

	... Rs. in Lakhs
(*i*) Subsidy from Government of India.	109
(*ii*) Loans from Government of India ...	103
(*iii*) Contribution from employers and co-operative housing societies of Industrial workers. ...	67
Total ... Rs.	279 Lakhs

It is expected that with the grant of subsidy and loans by the Government of India, industrial housing in the State will make tremendous progress and that during the next four years the present shortage of houses for industrial workers will, to a large extent, have been met.

Taking a hint from the Government of India, the State Government has also concentrated its activities in regard to industrial housing in one department, namely, the Public Health and Engineering Department under the Ministry of Local Self-Government. A model house in the Sukalia colony at Indore has already been prepared, in the construction of which 80 per cent of the local raw material has been used.

CHAPTER XXIII

MYSORE

In this State Bangalore is the main industrial area. The population of Bangalore city, according to 1951 census, is approximately 8,00,000. To accommodate this population 1,33,000 houses at the rate of one house for 6 persons are estimated to be necessary, but the number of houses in Bangalore at present is about 70,000, thus giving a shortage of about 60,000 houses causing over-crowding in middle class housing and forcing lower income groups to live anyhow.

There are at least 50,000 workers in need of housing. Except the few houses built by some industrial concerns, the workers are mostly living in one room sub-standard tenements or hutments in squalid surroundings. The Bangalore City Improvement Trust Board has undertaken construction of workers' quarters in Bangalore.

The population in 1941 was about 4,50,000 and rose to 8,00,000 in 1951 the increase being nearly 100 per cent. The cause of this enormous increase is easy war-time employment in the war period and starting of large scale industries like the Hindustan Air Craft Factory, Telephone Industries, etc. in Bangalore area. While the population doubled during the decade 1941—51 construction of new houses was stampeded owing to war-time restrictions, increase in the price of building materials and their general shortage.

Very few employers have provided housing for their workers. In all about 1,500 houses have been provided by the employers put together against a requirement of at least 50,000 houses. The Mysore Labour Housing Act, 1949, has been enacted with the object of providing houses for labourers as far as possible.

The State Government has introduced legislation for constituting a Labour Housing Corporation, which will statutorily be responsible for providing houses for labour all over the State. Two-thirds of the capital required will be provided by the Government as a loan returnable over a period of 25 years. The balance will be found by a levy on various industries at 4 per cent of their wage bill per annum. Houses are to be provided by this Corporation. Government has entrusted the Bangalore City Improvement Trust Board with the responsibility of constructing these houses. A grant of Rs. 5 lakhs was made in 1951-52 and 60 blocks of 4 units each as per plans and estimates approved by Government have already been constructed. These are proposals to construct 70 blocks of similar houses during the year 1952-53 at a cost of Rs. 10 lakhs. No goals have yet been announced but prominence has been given to "Permanent Constructions".

So far as housing for industrial workers is concerned, the Bangalore City Industrial Suburb has been planned where sites are provided for various industries. By the side of this suburb a housing area has been developed to provide houses for employees of these industries. Every industrialist, who buys a site in the Industrial Suburb, is required to buy an adequate number of sites in the housing area to provide houses for his employees. To facilitate shifting of industries from the old city, sites are offered to them at cheaper rates. Housing area has been planned to have all amenities, like, school, theatres, hospitals, etc., for workers. Industrial areas and housing area in the Industrial Suburb have been so planned that the workers have to travel the minimum distance to reach their place of work.

Government had under consideration the setting up of two Statutory bodies to deal with the housing problems :—

(*i*) Labour Housing Corporation to provide houses to industrial labour throughout the State ;
(*ii*) Co-operative Housing Corporation to facilitate construction of houses for other classes.

The latter body has already been formed and the former is about to be formed. But there are some practical difficulties, such as (*i*) lack of finance, and (*ii*) high prices and insufficiency of building materials, like cement, steel and wood.

CHAPTER XXIV

P. E. P. S. U.

Barring a few large industrial concerns like the Bhupindra Cement Works, Surajpur and the Patiala Biscuits Manufacturers Ltd., Rajpura, etc., the industrial concerns in PEPSU. are doing very little in the matter of providing residential accommodation for their workers. Many workers belong to nearby villages: and they come and go to their villages. Available information regarding the number of houses provided by the industrial concerns is as follows:

Serial No.	Name of the concern.	Number of houses.			
		One-room tenements	Two-room tenements	Larger tenements	Total
1	Bhupindra Cement Works, Surajpur.	...	...	...	484
2	Patiala Biscuits Manufacturers Ltd., Rajpura.	87	46	13	146
3	Jagatjit Sugar Mills, Co. Ltd., Phagwara.	80	17	15	112
4	Patiala Flour Mills, Co., Ltd., Patiala.	11	1	2	14
5	Dalmia Cement Ltd., Dalmia Dadri.	82	...	12	94
6	Bhupindra Flour Mills Ltd., Bhatinda.	20	47	22	89
7	Patiala Starch & Chemicals Ltd., Rajpura.	36	16	...	52
8	Ramji Dass Harbans Lal Sewing Machine Parts Manufacturers Ltd. Bassi Pathana.	18	...	...	18

The accommodation provided by employers is generally free of charge.

No studies have been made of the need for workers' housing. It has, however, been observed that the existing conditions for industrial workers are far from satisfactory. The standard of housing falls below the standard recommended by the Industrial Housing Sub-Committee of the Standing Labour Committee in their report.

The major causes of the shortage of adequate workers' housing are :—

(*a*) The employers seem to think that provision of housing accommodation for industrial workers is unprofitable investment. They, therefore, try to avoid this expenditure as far as possible.
(*b*) Shortage of building material and consequent difficulties in obtaining supplies thereof.
(*c*) High costs of building materials.
(*d*) Mistakes made in the selection of sites without taking into account the future extension of the industrial plant.
(*e*) No collective agreements exist under which employers may be responsible for providing housing to their workers.

The trend of opinion is that provision of housing for industrial workers is the ultimate responsibility of the State. However, it will take some time before the State can assume this responsibility entirely. Two schemes are, however, under the consideration of the State Government for providing industrial housing, one for providing 50 quarters at Patiala under the Five Years Development Plan and the other for providing 100 quarters at Phagwara, 50 quarters at Patiala, 50 quarters at Kapurthala, 50 quarters at Gobindgarh and 25 quarters at Rajpura. Expenditure on these quarters is estimated at Rs. 15 lakhs. It was proposed that the Central Government should be requested to grant a loan of Rs. 10 lakhs repayable by the State Government according to the provision of the Sinking Fund and the balance of Rs. 5 lakhs would be provided for by the State Government.

The employers' contribution will be in the form of rent for quarters allotted to their workers and the rent so charged would not exceed 3 per cent of the total cost. Steps will be taken to ensure that the employers actually pay the rent of the quarters allotted to their workers. It may be necessary to undertake legislation for this purpose.

The quarters to be built under the above schemes will consist of two rooms. Until housing position improves it is proposed that at least two wage earners should live in a two-roomed quarter.

CHAPTER XXV

RAJASTHAN

Rajasthan is really a backward State in regard to industrial housing. Total number of rural and urban industrial housing in factories in this State is about 4,200.

The composition of the workers' houses is not uniform. The range of composition varies from single room tenement to tenements consisting of two rooms, one kitchen, water closet and verandah. Detailed inquiry in this connection has not yet been made. No studies have so far been made by Government to prescribe the minimum standard of housing for workers.

The house building industry in Rajasthan is not a very important industry. A few contractors undertake the construction of houses. No published material on the house building industry in Rajasthan is available.

Some of the major causes of the shortage of adequate workers housing are as follows:—

(*a*) Poor condition of the working classes in Rajasthan. Workers are not in a position to save anything out of their wages for constructing the houses for them. This is perhaps due to low wages.

(*b*) No legal force from the State and absence of any collective agreement between the workers and the employers to provide houses for the workers.

(*c*) In Rajasthan the labour is mostly agricultural labour and temporary. Hence neither employers nor workers are anxious to have houses built for them.

(*d*) As a matter of fact due to the low wages in Rajasthan there is no saving to the workers. If a few workers have any savings, which is rare, they like to invest more in ornaments than in housing. In their liking housing comes after ornaments. A few individuals have made their temporary mud houses.

(*e*) There are no laws or collective agreements under which employers are responsible for providing housing for their workers in Rajasthan.

In most of the cases, where the employers have not provided houses to the workers, the workers have made their own mud houses. These houses are made of mud walls and thatched roof. All the material is collected and labour is done by the worker and his family members. There are no housing co-operative societies in Rajasthan.

In Rajasthan there is not much over-crowding in cities and this is one of the main reasons that the State Government have not felt any necessity to undertake any Housing schemes. Moreover, there are no major industries in this State worth the name. The State Government have, however, passed a Rent Control Act.

CHAPTER XXVI

AJMER

There are no large industrial cities in this State. There are only 5 large perennial factories, namely, 3 textile mills at Beawar and one textile mill and one sugar factory at Bijainagar. There are some Bidi manufacturing factories also in Ajmer proper and Beawar. Most of the workers reside in the nearby villages and the need for industrial housing on any large scale is not felt. There are two State-owned (Loco and Carriage) Railway Workshops also. The textile mills at Beawar have provided 154 one-room and 23 two-room tenements, the Bijainagar factories 64 one-room and 6 two-room and the Railway Administration 40 one-room and 12 two-room tenements, for housing their workers.

The accommodation at Beawar and Bijainagar has been provided at a nominal rent, which is less than the economic rent. The rent, however, is controlled under the Delhi and Ajmer Rent Control Act.

No estimates or studies regarding housing in relation to the minimum housing standards have been made in the State and thus not much headway has been made. The major causes of the shortage of industrial houses are :—

(1) Most of the workers are drawn from among the agriculturists and belong to the nearby villages and they prefer to come and go to their villages.

(2) No laws or collective agreements exist for providing housing for the workers.

(3) At present there is no State Fund for workers' housing and the present conditions in the State are not conducive for employers to make contributions to a State Fund for workers' housing.

Under the Government of India's Housing Scheme, the construction of 150 quarters at Bijainagar is under consideration and Government are considering the grant of a loan for this purpose to Shri Bijai Cotton Mills at Bijainagar.

Construction of buildings, water supply, etc., are governed by the bye-laws framed by different municipalities in the State.

CHAPTER XXVII

BHOPAL

Proper statistics of the actual number of houses occupied by workers in the city of Bhopal are not available. The bulk of the labour force belongs to Bhopal proper and lives scattered all over the city, in most cases in their own small houses. There is no separate locality specially meant for workers. Workers who are comparatively well-off, such as those engaged in the textile mills, are living in a little better houses than those occupied by less paid workers, who are employed in the Bidi making industry, etc. In cases of certain major industrial concerns employers have also provided *chawls* to a limited number of their workers. The Straw Products have already constructed about 100 houses for their workers and have given them free of rent. They are contemplating construction of more houses. The sugar factory has also provided houses for some of its workers and is planning to build more houses. No detailed survey in regard to minimum standards of housing has so far been made; nor do the employers at the present abnormal times feel inclined to contribute to State Fund for workers' housing due to present-day trade difficulties.

No special steps have so far been taken by the Government for workers' housing due to financial difficulties. The Industrial Housing Scheme of the Central Government, under which the Government of India offered to pay two-thirds of the cost of construction of the workers' houses on a loan basis and one-third of the cost was to be borne either by the employers or by the State Governments, was forwarded to the major industrial concerns to seek their co-operation in the implementation of the scheme. The new Subsidy and Loan Scheme recently framed by the Government of India will, however, improve the conditions to a great extent.

CHAPTER XXVIII

COORG

The total population in Coorg according to the 1951 census was 2,29,255 and the average number of persons per house was 5.3. A survey of housing accommodation has not, however, been conducted in Coorg so far.

All the houses both in urban and rural areas were numbered for the census in 1951, according to which there were 44,832 buildings in Coorg. (42,673 residential and 2,159 non-residential).

Housing in urban and rural areas has been left entirely to private enterprise and attention has not been paid so far to improve housing standards. The two municipalities have not fixed any minimum housing standards. The only provision in the Municipal Regulations is that the permission of the Municipal Committee should be obtained for construction of new houses. There is also a provision in the Coorg Public Health Act, 1943 for maintenance of sanitary conditions in the dwelling houses.

There is a provision in the Coorg Co-operative Act, 1936, and the rules framed thereunder to grant loans at low interest to Co-operative Housing Societies. There is only one Housing Co-operative Society with the area of operation extending over the Mercara Municipal limits. It has a membership of 137 with paid up share capital of Rs. 13,870 and deposit of Rs. 31,700. During the year 1950-51 a sum of Rs. 9,300 was advanced as loans to members for putting up residential buildings. There is also a provision in the Taccavi rules to grant loans to individuals for building houses under certain conditions.

The only important industries in Coorg are coffee, rubber and tea plantations. There are 22 small scale factories, like rice mills, rubber and tea factories and coffee curing works. In the plantations, the rubber and tea factories and coffee curing works the workers have been provided with housing accommodation. The planters in Coorg considered that the standard specifications recommended by the Industrial Housing Sub-Committee were not suitable for Coorg and that the standard recommended by the United Planter's Association of South India would be quite suitable for conditions prevailing in Coorg. The Industrial Committee on Plantations accepted the housing plan of the United Planters' Association as modified by the Chief Adviser, Factories, Government of India for adoption with the only modification that the provision of courtyard may be omitted. Some of the planters have constructed houses according to the specifications. Since 1947, 1452 sets of rooms have been constructed in 33 estates, comprising a total area of 15,156 acres. Each set of rooms consists of a living room, a kitchen and a verandah with a minimum floor area of 210 sq. ft. Others have also constructed such houses but no information is readily forthcoming. There is no specific agreement between the employers and workers.

In urban areas there is shortage of housing both for the working class and middle-class people. This is due to influx of people both from rural areas and outside the State. Neither the workers nor the Trade unions have taken any action to provide their own housing.

The terms and conditions of the Housing scheme started by the Government of India were intimated to the employers. Only 16 planters applied for a loan. The majority of the planters stated that they would themselves construct adequate number of houses according to the specifications without any help from the Government within a period of ten years.

Except providing quarters for some of the Gazetted Government employees, the State Government has not taken any action towards the promotion of housing. The question of preparing a Town Planning Scheme for the Mercara Municipality is under the Government's consideration.

Iron, steel, cement, asbestos sheets corrugated iron, etc., are being supplied at controlled rates either by the Government or through the agencies appointed by the Government. A Rent Control Act has also been passed by the State Government.

CHAPTER XXIX

DELHI

Some textile and other mills have provided housing accommodation to their workers in Delhi, but it is not adequate. Some workers have got their own houses as well, but they are nothing more than a place to take shelter from sun and rain. The houses are *kutcha* with no sanitary or other ordinary facilities. Where employers have provided housing to their staff the rent charged is less than the economic rent, and in the case of some key personnel, like watch and ward staff, the accommodation is provided rent free.

No detailed information about the number and composition of existing housing accommodation is available for urban or rural areas in the State. It may be mentioned, however, that the conditions were recently examined by the Delhi Improvement Trust Enquiry Committee set up by the Government of India, and they assessed that the total excess population for which satisfactory housing was required would be six lakhs. This Committee also estimated that out of this excess population of six lakhs, about 1.80 lakhs belonged to the poorest classes, representing the industrial and other labour as well as self-employed persons carrying on their own business or trade. On the workers' side alone, it is estimated that about 30,000 workers including factory and other types of labour, stand in need of housing accommodation and the total cost on this account is computed roughly at six crores of rupees. It may be observed that in Delhi there has been considerable over-crowding due to the influx of displaced persons whose number in the urban area is estimated at 4,70,400 according to the latest census.

No studies have been made of the need for workers housing in the State, nor have any statutory minimum standards so far been sponsored by the Government of India; a one room tenement with verandah and separate kitchen facilities has, however, been prescribed as the absolute minimum for the present.

The major difficulties which stand in the way of implementation of large scale programmes are:—

(*i*) lack of adequate finance;
(*ii*) the shortage of constructional materials; and
(*iii*) non-availability of suitable land within or nearabout the urban area.

As regards the land problem, the Delhi Improvement Trust Enquiry

Committee suggested a proposal of developing, 6,000 acres of land to be completed within five years for the purpose of construction of houses for the people of the poorest classes.

At present the following local bodies are concerned with the promotion of housing and town and country planning in the State :—

1. The Central Co-ordination Committee of Delhi for Greater Delhi under the Ministry of Works, Housing and Supply.
2. Ministry of Rehabilitation for the purpose of housing for displaced persons.
3. Delhi Improvement Trust.
4. Municipal Committees of Delhi, New Delhi, Shahdara and Notified Area Committees set up in different urban centres.

The Town Planner of the Government of India is at present preoccupied in working out a master plan for Greater Delhi. The powers and resources of the Delhi Improvement Trust are the same as in the United Provinces Town Improvement Act as extended to Delhi, under which the Trust operates. The Trust during the last 14 years has sponsored 44 schemes relating to development of vacant land, slum clearance, construction of houses for displaced persons, provision of public amenities, markets and cart stand, and grassing of open plots. The Trust has at present the following important plans which are under action :—

1. Delhi Ajmere Gate Scheme.
2. Roshanara Extension.
3. Shadipur Extension No. 1 & 2.
4. Najafgarh Road Industrial Area Scheme.

In 1939 the Government decided on a scheme for housing the poor class people who were going to be dehoused as a result of slum clearance operations. The scheme envisaged broadly: (*a*) advancing a loan to the Trust, (*b*) giving the Trust an annual grant-in-aid as subsidy from the entertainment tax to meet the recurring deficit on the scheme, (*c*) making rehousing arrangements in advance of dehousing and (*d*) confining rehousing benefits to the lowest income group (those having an income of Rs. 75 or below). The Trust built about 530 houses uptil 1942 after which the Trust received a serious set-back due to the War and their building activity was impeded. In 1947, the Trust had made another 335 double and single storeyed quarters but they were mainly occupied by the refugees. In the year 1951 a scheme for the construction of 504 more quarters was sanctioned, but only about 415 quarters could be built. Performing the opening ceremony of about 120 houses out of these 415, the Hon'ble Mr. Braham Parkash, the Chief Minister of the State, said that haphazard expansion of the city would not be tolerated and he advised the people to co-operate with the authorities in the slum clearance schemes of the capital.

The accommodation provided to each family in these poor houses consists of one room of 12′ × 10′ and a verandah of 12′ × 7′ for cooking. Common baths and latrines have been provided in different blocks in addition to the filtered water supply and underground drainage.

The State Government has formulated a five year plan of 1,400 quarters at an estimated cost of Rs. 56 lakhs. In addition, some of the local authorities intend to construct houses for their employees while the Ministry of Rehabilitation have already constructed a good number of houses for displaced persons. In housing programme, only permanent constructions are undertaken although in few cases semi-permanent constructions have been sponsored. The main reason for preference of permanent construction is the climatic conditions which render a temporary structure unsuitable while, due to the cost factor, a semi-permanent construction has not been found useful and advantageous in the long run.

With a view to encourage industrial decentralisation in the main city, the Delhi Improvement Trust has developed a 600 acre block of land (industrial area) about 5 miles to the west of Delhi for the establishment of industries. One of the objects of sponsoring this scheme was the expected amelioration that would result from the migration of factories from the city to this area. It may also be mentioned that as a rule, no new major industry is permitted in the Delhi urban area and the net work of new factories has now sprung up in the newly developed area.

Mentioning about the State's scheme and action in regard to housing, Mr. Braham Parkash, the Chief Minister, disclosed at a Press conference on the 7th August, 1952, that the Delhi State Government would give priority to the housing problem and will frame a definite policy and programme on a planned and permanent basis. He said the haphazard expansion of the city and acute shortage of housing accommodation had made it imperative that the problem should be given special attention by the Government. With this view in end, the State Government deputed Shri K.K. Sharma, Secretary, Local Self-Government, to survey the housing position and to evolve a scheme and also appointed a Housing Sub-Committee. The above officer has drafted a Bill and also has suggested the formation of a Housing Board with official and non-official members to finalise the scheme. The Sub-Committee has, *inter alia,* suggested the setting up of a separate Housing Department to tackle the problem in the State. Some progress in this direction will also now be made at an early date as a result of the Government of India Loan and Subsidy scheme, which has recently been finalised by the Union Government in consultation with the State Governments, Employers' and Employees' representatives.

CHAPTER XXX

HIMACHAL PRADESH

This State came into existence as a separate State in 1948 only. There is so far no real problem about providing housing accommodation to workers in Himachal Pradesh. The existing arrangements appear to meet the requirements. There are 4 main industrial units in the State.

Quantity and composition of existing housing accommodation provided by these factories are shown below:—

Name of factory	Existing Housing accommodation.
Himachal Rosin and Turpentine Factory, Nahan, Sirmur Distt.	One building with 3 sets, each set containing 2 rooms and a kitchen.
Nahan Foundry, Nahan.	Six quarters.
Dyer Meakin Breweries Ltd. Solan, Mahasu District.	For clerical staff, one set of quarters comprising two living rooms with kitchen, bath, etc. For Mazdoors two sets of quarters comprising 6 rooms each with kitchen and verandah.
Shri Rajkumar Ashokpal Singh's Tea Estates Chauntra and Dhelu in Mandi District.	One quarter with 4 rooms at Chauntra. Two quarters with 2 rooms each at Dhelu.

In the case of the Nahan Foundry quite a large number of workers who migrated from Uttar Pradesh and Punjab have settled down here and some of them have bought their own houses also from their own savings. In some cases the Foundry has provided its workers land on a nominal rent on which the workers have built their houses. The Himachal Government Transport Service have also provided housing to their workers and they charge only an economic rent for the same. The Tea Estates, however, provide houses to their workers free of rent.

Government have taken no special steps in regard to housing as there are only a few industrial concerns in the State and the labour is generally recruited from the neighbouring villages who prefer to come and go to their villages and whatever demand for housing arises is met without much difficulty.

PART III

HOUSING CONDITIONS IN IMPORTANT INDUSTRIES

CHAPTER XXXI

COAL MINING INDUSTRY

Housing for coal miners is a very pressing problem in India. It has certain features of its own. Firstly, unlike other industrial centres, it is difficult to build houses in the coalfields for permanent use. The difficulty of obtaining sites with a solid foundation is a great handicap which obstructs the development of any housing scheme. Mining subsidences encroach upon suitable building sites. In the second place, the building of temporary houses is encouraged by the existence of short period leases. Thirdly, as the location of collieries is determined by geological rather than by economic factors, they have to build their own towns and are deprived of the help of the capitalists in building houses for their workers. The conditions of housing in different coalfields are narrated below in chronological order.

Conditions about 1917

The Committee of Enquiry appointed by the Government of Bihar and Orissa in 1917 to report on the question of housing of labourers in the collieries presented a gloomy picture of the then existing housing conditions. The Committee reported that in the Giridih coalfield the East Indian Railway Company had provided each family of miners a separate house with a field around it. The rooms were grouped round a courtyard, mud walls and tiled roof, mud floors plastered with a mixture of cowdung and earth. Water was supplied from hydrants. No latrines were provided. The Mugma coalfield was not so vigorously worked as Jharia and most of the labourers lived in their own villages. The questions of sanitation and housing in this area were left unattended to. In the Jharia coalfield different kinds of houses were provided for the labourers. The usual type was a line of rooms, say 10, side by side or a double block of two such lines built back to back. There was a great scarcity of accommodation throughout the coalfields.

The Committee pointed out that the sites of huts were not always properly chosen from a sanitary point of view. In most places there was natural drainage. Very few of the *dhowrahs* were provided with impervious drains. The average room in the ordinary *pucca dhowrah* had a floor measuring 10 ft. by 8 ft. usually with a low roof —which did not conduce to comfort nor permit of proper ventilation. The height of the rooms varied from 6½ to 10 ft. No door was provided and as such the workers were compelled to make doors for themselves out of old kerosine tins, sheets of galvanized iron or matting.

Most of the labourers had to bathe in tanks or streams the water of which was often contaminated.

The *dhowrahs* were neither beautiful nor healthy. The labourer enjoyed no privacy in his domestic life. He had to carry his personal belongings about with him for fear of theft. His only pleasure was that which was purchased at the liquor shop.

The Committee made elaborate recommendations regarding provision of better types of houses with adequate space, ventilation, light, latrines, drainage and other sanitary conditions. They specified the need of framing some rules about layout to prevent the growth of huddled groups of huts or of *bustees* as well as to eliminate the defects of ventilation. The Committee laid down that the minimum size of the rooms should be one hundred square feet of floor space and one thousand cubic feet of air space with door, verandah and a proper system of ventilation. The roofs of the houses should be of masonry, concrete or tiles. They suggested provision of bathing facilities and stressed the necessity for improvement of the supply of drinking water. They recommended inclusion in the Bihar and Orissa Mining Settlement Act, which was under preparation at that time, adequate provisions so as to enable a Mines Board of Health to frame laws consonant with local conditions,

Conditions about 1930

The Royal Commission found that the housing situation continued to be as unsatisfactory as ever. The problems of housing in mining areas were closing down of mines and consequential shifting of labour, difficulty of obtaining sites with a solid foundation and tendency of the miners to settle down in the larger and better organised collieries, with serious over-crowding caused by heavy influx of labour. The Commission wrote, that while in Jharia and Raniganj coalfields all housing constructions were goverened by regulations laid down by the Jharia and Asansol Mines Board of Health, which were constituted in 1913 and 1915, respectively, and were able to effect considerable progress, the usual accommodation was the arched *dhowrah* built of brick and cement concrete.

The Commission while realising the difficulties of the coalmining industry, commented as follows :—

" Many of the lines leave much room for improvement. The arched *dhowrahs,* although possibly cool in the hot weather, are often dark and ill-ventilated, and few are fitted with windows. The single room, 10′ × 10′, serves as kitchen, store room, living and sleeping room. As cooking must be done either in the room or in the arched verandah in front and ventilation is usually defective the inner walls quickly become coated with smoke and soot. When *dhowrahs* are erected back to back, as is sometimes the case, these defects are further aggravated." The Commission reported that apart from unsatisfactory sanitation, latrine accommodation was inadequate and bathing and washing places were to be increased.

Giridih Area

As regards housing in Giridih area the Commission stated that workers and staff were provided with rent-free quarters which were of two different types, one with a *pucca* concrete roof and the other with a tiled roof. The miners prefer houses of the latter type.

The Commission made the following recommendations :—

(*a*) Small block of two to four houses in partitioned units should be more extensively used and new houses should have a window and roof ventilation.

(*b*) The staff of the Board of Health should take every possible step to prohibit occupation of a house by more than one set of inhabitants.

(*c*) Bathing and washing places should be built near each block of houses.

(*d*) Latrines of approved types should be generally installed preferably of the septic tank type.

(*e*) The graded system of coloured licenses at Jharia should be abolished forthwith.

(*f*) More attention should be given to housing, water supply, drainage and latrines in metalliferous mining areas.

Present day conditions—Jharia Coalfield

The housing problem both in the Jharia and Raniganj coalfields has become somewhat difficult due to difficulty of finding non-coal bearing land. A peculiarity of workers' housing in the important coalfields of Raniganj and Jharia is that the specifications of the type of housing to be built, the accommodation to be provided, etc., are governed by law although there is no compulsion on the employers to provide housing for all or a certain proportion of their work people.

According to the statistics published by the Jharia Mines Board of Health, in 1944, there were 33,738 *dhowrahs* for an average labour force of 1,01,457. The approximate colliery population was 2,02,914 and the density per *dhowrah* was 6. This density has been on the increase since 1929, when there were 32,793 *dhowrahs* for an average labour force of 61,709 and the approximate colliery population was 1,09,380 and the density per *dhowrah* was 3.33. Investigations carried out in a group of sampled mines in 1945-46 showed that about 50 per cent of the workers employed in Jharia coalfields were housed in these quarters. Since 1944, there has been very little increase in the number of quarters, although the average labour force has increased to about 1,30,000 in 1952, the number of *dhowrahs* has risen to only 37,386.

About 25 per cent of the persons living in the *dhowrahs* are single men, about 50 per cent family men, while the remaining 25 per cent come from the adjoining villages. In some of the big collieries there is a courtyard provided in a *dhowrah* with a partitioned wall. In one colliery, the *dhowrahs* were single storeyed. They are only ground floor structures with cemented roof. In some of the large collieries such as the Tatas at Digwadih and at Jealgora, a separate kitchen in the court-yard has been provided. The Tatas also provide in addition to a kitchen, a bathing place in the *dhowrah.* In the new type of construction, a window is generally provided but in the back to back *dhowrahs* there are only brick hole ventilators.

According to bye law No. 4 under Section 25 (1) of the Bihar and Orissa Mining Settlement Act, 1920 workers' dwellings have to be built according to the following specifications :—

The floor space should be 100 sq. ft., the air space one thousand cubic feet, the width of the room 8 ft. the average height 7 ft.; the walls to be of concrete or similar material ; roof to be of concrete, masonry or tiles and to be weather proof, the floor to have at least one foot plinth and every house to have a verandah 5 ft. in width with 40 sq. ft. floor space. Every room to be properly ventilated and to be provided with a doorway with an average height of 5 ft., etc. Every adult must have a floor space of 33 sq. ft. and air space of 300 cubic feet. A block of houses should not contain more than 10 rooms.

These bye-laws were amended in 1944 and according to the amended bye-laws the floor space per room has been increased from 100 to 150 sq. ft., air space from a thousand to 1,500 cft., the average height of the room from 7 to 10 ft. and the width from 8 to 10 ft. The average floor space per adult has been increased to 50 sq. ft., and the average air space from 300 cft. to 500 cft. The number of rooms per block has been increased from 10 to 20 and the construction of back to back houses has been prohibited.

The workers' dwellings or *dhowrahs* consist of a room and a verandah. Most of these were built before the new specifications were prescribed in 1944. Each room has an arched frontage and presents the appearance of a cylinder. A small proportion of the *dhowrahs* have been remodelled since the amended specifications came into force but a large majority are back to back.

In spite of the provisions for adequate sanitary arrangements in the bye-laws of the Jharia Mines Board of Health, very few mines have drains. No latrines or urinals are provided in a majority of collieries and where they are provided, they are grossly inadequate and kept in a very insanitary condition. Miners, especially the children, ease themselves too near the quarters and pigs do the work of scavengers, for though sweepers are employed by some collieries, they are kept too busy in the quarters of the supervisory staff. The compounds of the *dhowrahs* are not levelled properly and remain in a very dirty condition.

Water supply is also inadequate. In the Jharia coalfield, the collieries are supplied water from the Topchanchi water reservoir but the common taps provided for the workers are too few and distant. In some collieries there are no arrangements for the supply of drinking water. They have to fetch it from wells and streams.

There are no arrangements for washing and bathing in the *dhowrahs*. Generally the surface tank near the mines contains water pumped out from the mine and this water is used for the purposes of bathing and washing. Often the workers bathe and wash in stagnant pools.

In short, a large proportion of the housing in the Jharia coalfield is a mere pretence of housing, incredibly dark, damp, ill-ventilated, filthy with no privacy or sanitation. Some of the huts are only leafy shelters and sleeping in the same room is common enough. The congestion in these huts is appalling. Stagnant pools and open drains with foul smell are a common sight.

Later in the chapter details have been given of the housing schemes under the Coal Mines Labour Welfare Fund.

Raniganj

Housing condition in the Raniganj coalfield of Bengal is nearly the same as in the Jharia coalfield. They are also governed by similar bye-laws of the Asansol Mines Board of Health. Investigations carried out in 39 sampled collieries in 1945-46 showed that there were about 4,537 rooms for 14,493 workers. The total colliery population was 26,484 and the average number of persons per room was 5. In many collieries the workers are provided with plots of land and also supplied with bamboos, bricks and tiles to build their own huts and settle permanently. Water supply is inadequate and there are no sanitary arrangements.

Madhya Pradesh

In Madhya Pradesh almost all the mines have made some provision for housing their employees and the *dhowrahs* built by them are in the vicinity of the mines. About 70 per cent of the total number of workers can be said to have been housed by the employers. One of the important groups of collieries has made provision for the housing of 85 per cent of its employees. Each worker is provided with one room 10 × 10 or 12 × 10 feet in size and a verandah 12 × 5 feet. The rooms are built back to back and naturally there is no adequate ventilation and lighting. Out of the other collieries about 80 per cent have built *pucca* quarters, while the rest are content with rooms and walls of mud and thatched roofs. The size of the room is generally 10 × 10 or 12 × 10 feet. For purposes of ventilation instead of windows generally brick holes are provided on the front walls. Almost all collieries provide well water to the workers. In some collieries the workers have to fetch water from the neighbouring *nallahs* or springs. No bathing facilities have been provided and men as well women take their bath in the open space near some wells. There is a general complaint regarding acute shortage of water, especially during summer. Sanitary arrangements are also far from satisfactory. About a dozen mines have provided separate latrines for men and women, but these are seldom kept clean and their number is inadequate. Housing conditions are worse in the Wardha Valley than those in the Pench Valley. The majority of workers are housed in temporary huts made of bamboos, branches and leaves without any protection against either cold or rain. Workers have to walk long distances to get their supply of water. Most of the houses are in a bad state of repair.

Investigations carried out in 19 sampled collieries in 1945-46 showed that 13,987 out of a total of 21,145 workers, i.e., about 66 per cent, were housed. The density was about 4 to 5 per room.

Assam

The arrangements made by the largest group of mines in Assam for housing, water supply and sanitation, etc., for their workers afford a pleasant contrast to the conditions generally prevailing in other coalfields in this country. *Pucca* houses have been built with good ventilation. Excellent arrangements have been made for supply of drinking water and sanitation. The houses have been so constructed as to allow enough ventilation and light. The compounds are kept scrupulously clean and proper drainage has been provided. The latrines are either of the bucket type or the septic tank type. About three to four persons live in one room.

Investigations carried out in 6 sampled mines in the State in 1945-46 showed that 3,545 out of a total of 3,780 workers, i.e. about 94 per cent were housed.

Causes of shortage

The major causes of the shortage of adequate workers' housing in collieries are:—

(*a*) The apathy and indifference of the employers who alone at present are in a position to provide housing.
(*b*) The uneconomic size of the mines and hence their financial inability to provide the minimum requirements of a decent life.
(*c*) The difficulty of finding non-coal-bearing land.
(*d*) The difficulty in getting building materials.
(*e*) The workers in the coalmines do not permanently settle in the mines, and hence they have no incentive to build houses of their own, and even if they wanted to, they are too poorly paid to invest in housing.

To sum up, with the exception of a relieving feature here and there the sanitary condition of the houses in the coalfields of India is quite unsatisfactory. The houses are over-crowded, with no privacy, no light, no roads leading to them, no drains, no safety; they are damp and small and are neither whitewashed nor maintained in proper condition. They are surrounded by heaps of rubbish, night soil, dirty pools and stinking drains. In short, they are nothing short of death traps or places where, as Dr. Radha Kamal Mukerjee says, " manhood is being brutalised, womanhood is being dishonoured and childhood is being poisoned."

The effects of housing on health and morals

The health of a community is reflected in the death-rate, the birth-rate, the rate of infant mortality and maternal mortality, etc. There is a high rate of mortality among infants. It is true that the Jharia and Asansol Mines Boards of Health are trying to bring down the infant mortality. Overcrowding affects the childrens' physique. Incidences of diseases like malaria is fairly high and so are eye and skin diseases and leprosy. The Mines Boards try to control epidemics like small-pox, plague, cholera, etc.

Housing conditions have a direct bearing on the morals of the community. Drunkenness and venereal diseases prevail. The terrible congestion in insanitary houses and the agglomeration of heterogeneous people have all contributed to moral and social deterioration.

Standard of living and efficiency and housing

Improvement of housing is also required to increase the efficiency of the workers. The squalid and unnatural life of the workers in the mining towns is no mean cause of their floating character which in turn is responsible for much of their inefficiency. As they are agriculturists they find it impossible to reconcile themselves to the dirt and squalor of these towns. Besides this, the unhealthy and insanitary conditions affect the physique of the workers, and tend to destroy their alertness of mind and deaden and stupefy their intelligence.

Demoralisation caused by bad housing, together with diseases like malaria, respiratory diseases and hookworm tell upon their efficiency and are responsible for much of their irregularity and unsteadiness in work. A debauch, a drunkard, a man devitalised by malaria, tuberculosis, bowel, skin and eye diseases, cannot be very industrious and regular in his work. An uncomfortable home drives him to the liquor shop which swallows up a considerable part of his poor income. Liquor makes him live without proper clothes and sometimes even without food.

Improvement of housing in the coalfields

Soon after the first World war the Jharia Mines Board of Health took the housing improvement as one of its important functions. The housing bye-laws lay down certain standards. There are similar standards in case of Asansol Mines Board of Health.

It has been recommended in the Report on Labour in Coal Mines in Madhya Pradesh that a scheme should be drawn up for colliery housing on some suitable scale. The present 'Jharia Standard' houses, the report added, could serve as single man's quarters, with certain improvement in the provision of drains, latrines, lights, etc., or as temporary quarters for families not permanently resident. It has also been recommended in the report that comprehensive legislation should be undertaken to control housing and sanitation in the mining areas.

The following standards have been laid in the report:—

There should be two rooms wih a floor area of 160 square feet. Each room should be at least 8 ft. wide. Both these rooms should have a verandah in front 16′ × 5′. In addition to it, there should be a walled compound of 112 sq. ft. (16′ × 7′). The room should be at least 8 feet high, the verandah 7 feet and the compound wall 6 feet. The doors of the room should be at least 6′ × 2½′. The floor of the house should be cemented. The roof should be tiled or *pucca.* A kitchen should be provided in the corner of the compound, properly ventilated. There should be another type of housing, one roomed, for single man. The room should be not less than 10′ × 10′ × 8′ with a door, a window, a roofed ventilator, and a verandah of 40 to 50 square feet. All these houses should be built in blocks of three to four houses instead of back to back or in long lines. Each block should have a *pucca* drain to carry away sullage water. In the vicinity there should be two taps surrounded by a wall on all sides, serving the purpose of separate bathrooms for women and men and supply water for cooking. One of the taps should be of Pangh river water, settled and chlorinated, and the other of pit water (or other supply) found suitable for washing and bathing purposes. There should be a sufficient number of flush septic-tank latrines; each block should be provided with a dust-bin cleaned daily. Between every three or four houses an electric or other light post should be installed. Each house, wherever possible should be provided with a small plot of land for growing vegetables and flowers.

Central Government's Housing Scheme for coal miners

In view of the extremely unsatisfactory position of housing of colliery labour the Government of India proposed in 1947 that 50,000 houses should be constructed in the coalfields, each house consisting of two living rooms (each 10′ × 12′) a kitchen (10′ × 7′), a bathroom (4′ × 4′), a verandah in front and a verandah at the back, a courtyard and a lavatory. The construction of 50,000 houses was allotted as follows:—

Bihar	31,000
West Bengal	15,500
Madhya Pradesh	3,500
Total ..	50,000

The total mining population in India is estimated at 3,00,000 of which the majority is concentrated in the States of Bihar, West Bengal and Madhya Pradesh which account for about 2,37,000. According to the rates then prevalent, a house of this type was expected to cost Rs. 2,500. It was agreed that in respect of the first 11,000 houses the Central Government would pay a subsidy to the extent of 20 per cent of the total cost of each house including the cost of land, subject to a maximum of Rs. 400 per house. The balance of the cost was to be provided out of loan funds on which interest and amortisation charges would have to be paid. In view of the difficulty of effecting recoveries from either the miners or their employers it was decided that the recurring charges should be met by means of an additional cess. A housing cess of one anna four pies for every ton of coal or coke despatched from collieries by rail was imposed by the Coal Mines Labour Welfare Fund Act, 1947. The Act also provided for the constitution of a Coal Mines Labour Housing Board to prepare and carry out schemes for the provision of suitable housing accommodation for coalminers. In accordance with this Act, a Housing Board having representatives of Government, employers and workers has also been set up.

So far as the actual construction of houses under this scheme was concerned, the following policy was laid down:—

(1) Houses should be built in centralised townships. expenses involved in the acquisition of land and cons[illegible]tion of houses should be borne by the Housing Board.

(2) To the extent townships are impracticable, owing to difficulty in obtaining land or transport difficulties, houses may be built on land belonging to colliery owners by one of the following methods:—

(*a*) Where colliery owners agree to build houses, they will be treated as contractors under the Fund, which will pay for the houses under construction at different stages as construction proceeds. The buildings will have to conform to the plan and specifications laid down by Government and land provided by the colliery owners.

(*b*) Colliery owners should start construction of houses on land adjacent to their collieries at their own cost or, if necessary, by taking loans and the Welfare Fund would, after completion of the buildings acquire them and pay to the mine owner the actual cost of the buildings with interest at the rate of 3 per cent from the date of completion of the building to the date of its acquisition.

It was at first thought that it would be possible to construct townships with 5,000 houses at each site but in actual practice it was found difficult to obtain coal-free land near the coalfields. It was also difficult to ensure sufficient water for such a big community. These, coupled with the long interval that was anticipated before the land could be acquired, led to the abandonment of the idea of big townships and the Board had to fall back upon schemes for smaller townships. In the Bihar coalfield at Bhuli about 1,600 houses have been constructed with a view to set up a small self-contained township with all modern amenities like schools, hospitals, maternity and child welfare centres, playgrounds, parks, shops and market. These houses have been constructed not from loan funds as was originally proposed but from the housing cess. In Raniganj 50 houses have been completed at Bijoyanagar and about 540 houses in Railway collieries.

The Coal Mines Labour Welfare Fund maintains a separate account from which a housing scheme for coal miners is being financed. The total receipts of the Housing Account of the Fund up to 31st March, 1951, amounted to Rs. 2,14,63,000 of which Rs. 67,06,000 had been spent up to that date. As mentioned earlier, the scheme for the housing of coal miners envisaged the building of 50,000 houses. It was proposed to build 12,500 houses in Bihar, 6,500 in Bengal and 1,750 in Madhya Pradesh in centralised mining townships and provide the townships with all modern amenities.

Recovery of rent was fixed at the rate of Rs. 2 p. m. per house from the miner and Rs. 6 per house from the colliery owner employing the worker. But due to the difficulty in getting the houses constructed at Bhuli occupied by the coal-miners, the Housing Board has recommended that only a nominal rent should be recovered from each miner. The rent recoverable from the mine owners, should, however, remain the same.

In view of the meagre resources of the Housing Account of the Coal Mines Welfare Fund and the ever-increasing cost of housing in coalfields, the Central Government have on the recommendation of the Coal Mines Labour Welfare Advisory Committee, evolved the following revised scheme for construction of miners' housing in coalfields:—

(1) The colliery owners who will construct miners' houses in accordance with the type plan prescribed by the Coal Mines Labour Welfare Organisation will be entitled to a subsidy at 20 per cent of the cost of construction or Rs. 600 whichever is less. (Since raised to 25 per cent or Rs. 750.)

(2) The houses should be let out by the colliery owners only to genuine colliery workers other than clerical and supervisory staff working in the collieries concerned.

(3) The inspection staff of the Welfare Fund should be given reasonable facilities by the colliery-owners for inspection during the course of construction of the houses and thereafter.

(4) The houses should be kept by the colliery owners in a proper state of maintenance.

So far only about 100 houses have been constructed under the Scheme. During the year 1952-53, 2900 houses and during 1953-54, 2500 houses are likely to be constructed.

As the response from the colliery owners as well as the workers has been poor to this scheme, the Hon'ble Shri V. V. Giri, Labour Minister, addressing the 31st meeting of the Coal Mines Labour Welfare Fund Advisory Committee at Dhanbad deplored the situation and said that in regard to housing the progress has not been very encouraging. He regretted that a large number of houses built at Bhuli and Bijoyanagar were still lying vacant despite the numerous amenities provided therein. He said that although the scheme had been in operation for some time now, applications for subsidy in respect of only 116 houses had been received so far and about 115 houses either had been constructed or were under construction.

The following are the salient modifications made by the Central Government in the type plan prescribed for the construction of miners' houses under the subsidised scheme:—

(1) The dimensions of the rooms have been reduced from 10′ × 12′ to 10′ × 8′.

(2) The dimension of the front verandah has been reduced from 8′ × 7′ to 8′ × 5½′.

(3) In the existing plan there is provision for a back verandah-cum-kitchen 10′ × 7′ and latrine of the size 5′ × 3½′. In their place, provision has been made for a kitchen (10′ × 6½′), a bathroom (6′ × 3′) and a store (5′ × 3′). The overall plinth area has thus been reduced from 501 sq. ft. to 401 sq. ft. No separate latrine has been provided per house as the proposal is to have community latrines.

(4) Brick compound wall in the existing plan has been given place to wire fencing. In the existing specifications asbestos sheets roof has been provided for the bath and the store. The overall cost of each house including sanitary arrangements and water supply has been estimated at Rs. 3,000.

CHAPTER XXXII

COTTON MILL INDUSTRY

The cotton mill industry, which is now nearly a century old, provides employment to over five lakhs of industrial workers. The industry is spread over the whole length and breadth of this sub-continent. It is not confined merely to big cities like Bombay and Kanpur but is also to be found in district towns like Madura and Sholapur, taluka places like Barsi and Gadag and occasionally even in petty villages like Gokak, Papanasam, etc. The following two tables will show the progress as well as localisation of the industry.

Progress of cotton mills in India.

Year		Number of Mills	Number of Spindles	Number of Looms	Average Number of Hands employed
1906	..	217	52,79,595	52.668	2,08,616
1916	..	266	68,39,877	1,10,268	2,74,361
1926	..	334	87,14,168	1,59,464	3,73,508
1936	..	379	98,56,658	2,00,062	4,17,803
1946	..	421	1,03,05,167	2,02,814	4,95,456
1950	..	445	1,12,40,635	2,01,464	4,25,032

(Figures for 1947)

Serial No.	Name of State	Number of Mills	Number of Spindles	Number of Looms	Average Number of Hands employed
1	Bombay (including Sind)	210	59,81,573	1,35,866	2,70,222
2	Madras ..	72	15,82,238	7,785	65,658
3	West Bengal (including East Bengal)	38	4,75,766	11,391	26,343

Serial No.	Name of State	Number of Mills	Number of Spindles	Number of Looms	Average Number of Hands employed
(Contd.)		(Figures for 1947)			
4	Uttar Pradesh	30	7,76,756	12,253	31,755
5	Madhya Bharat	17	4,02,464	11,097	26,019
6	Rajasthan ..	10	1,32,872	3,009	8,396
7	Punjab (including West Punjab)	8	1,13,654	2,831	5,941
8	Mysore ..	8	1,61,752	2,828	10,678
9	Madhya Pradesh	7	3,00,000	5,314	18,197
10	Hyderabad.	6	1,20,188	2,462	7,224
11	Delhi ..	6	1,14,240	3,321	6,273
12	Berar ..	4	68,448	1,470	3,895
13	Pondicherry	3	85,376	1,980	5,737
14	Bihar & Orissa	2	26,024	745	1,333
15	Travancore.	2	12,532	310	699
	Total ..	423	1,03,53,973	2,02,662	4,88,370

Bombay

The housing conditions of cotton textile workers can only be regarded as being dismal. The growth of the industry has synchronized with the growth of slums, overcrowding and congestion. A few employers have built houses for their employees but in such housing schemes only a small proportion of the total has been accommodated.

Employers' Housing

The position as regards employers' housing has remained the same as described in the Report of Textile Labour Enquiry Committee 1938. Briefly the position is as follows :—

Twenty-one mills have provided quarters for their workers in 4,940 tenements. Only a few of the tenements have 2 or 3 rooms. These quarters are located in 166 buildings known locally as '*chawls.*' The size of the room is, in the majority of cases, 10′ × 10′ being 15 ft. × 10 ft. in a few cases. The *chawls* or tenements are 3 to 4 storeys high. In housing accommodation provided by cotton mill owners in Bombay in 1940, the percentage of families occupying one-room tenements in Bombay city, Ahmedabad and Sholapur was 91.24, 73.82 and 58.24 respectively while the number of persons residing in one room tenements in the above three areas was 3.84,3.95 and 4.31 respectively. The floor space for one room tenements per person per tenement was 26.86 sq. ft. in Bombay city and 21.25 in Sholapur. The average monthly rent for one room tenement was Rs. 4/14/6 and Rs. 7/6/6 in Bombay city, Rs. 5/0/4 and Rs. 5/11/7 in Ahmedabad and Rs. 2/5/3 and Rs. 2/15/4 in Sholapur.

In the *chawls* there are common arrangements for water supply and sanitation. While a group of mills provides electric lights in the tenements—in the other *chawls* electric light is supplied only in the corridors. Usually three to four persons occupy one room although the tenements are now much more overcrowded.

Municipal Housing

The Bombay Municipality has built about 11,000 tenements and nearly 3,000 sheds. About a quarter of these are occupied by mill workers. In addition, the municipality owns 5,000 single-room quarters in the estates acquired by the Improvement Trust and of these nearly 25 per cent are occupied by cotton mill workers. The rent per tenement varies from Rs. 5 to Rs. 10/8/- per month and Rs. 2/8/- to Rs. 6 p. m. per shed.

Government Housing

Owing to the prevailing unsatisfactory housing conditions the Government of Bombay launched in 1920, a programme of industrial housing with a view to providing 50,000 tenements at an estimated cost of over five crores of rupees. Actually only 16,524 tenements were built at an average cost of Rs. 2,084 each. These tenements were in *chawls* built with cement and were for a long time extremely unpopular owing to their distance from the mills, lack of lighting and ventilation, structural defects, etc. In 1937, the Government of Bombay appointed a committee to suggest structural alterations and improvements in these *chawls* and in 1938 about four lakh of rupees were spent to make the suggested improvements. As a result a considerable number of cotton mill workers moved in these *chawls*.

Private Housing

The majority of industrial workers in Bombay city live in houses provided by private landlords. These are usually *chawls* containing one-room tenements with a common verandah and common arrangements for sanitation and water supply. Most of these, particularly, the older structures are extremely ill-lighted and illventilated without adequate water supply and sanitary arrangements. The average floor space per person and tenement is 26.86 and 103.23 sq. ft. respectively, the average monthly rent being Rs. 7 for one room tenement. During recent years apart from any improvement in housing conditions, the position has been getting from bad to worse. For instance, while in 1935 the proportion of families of industrial workers living in one-room tenements was 73.86, according to the Report of the Textile Labour Enquiry Committee it was 81 in 1940. The average number of persons living in such tenements was about four but the conditions created by the World war II have gravely accentuated the situation. Owing to the shortage of building material there has been an almost complete cessation of building activity and thus the increased population has to find accommodation in the pre-war housing supply. So great is the congestion and overcrowding that there has been a vast increase in the number of persons without a shelter who take recourse to the foot-paths for sleeping during the night. Even before the war, as revealed by the Family Budget Enquiry, a considerable number of families had to share a single-room tenement. The position has become worse since.

The Government of Bombay have passed an Act for the restriction of house rent but it is being circumvented by rapacious landlords.

Sholapur

All the employers have provided housing for a proportion of their workers in mill *chawls*. The largest unit has built 650 single-roomed *pucca* tenements in which about 20 per cent of the workers are housed. Another unit has a workers' colony consisting of 309 tenements. The size of the rooms is generally 10 ft. × 12 ft. although some of the tenements are 15 ft. × 10 ft. in size.

With a few exceptions the *chawls* are built in back to back rows and the average number of persons per tenement is a little over four. There are separate sanitary arrangements for men and women. The rents charged vary from Rs. 1/8/- to Rs. 2/8/- per month. The houses provided by private landlords are dark and ill-ventilated.

The Jam Shri Ranjit Singhji Spinning and Weaving Mills, Sholapur have provided about 15 per cent of their permanent workers with housing accommodation in 241 tenements. The rents charged vary from Rs. 1/8/- to Rs. 4/- p. m.

The Sholapur Spinning and Weaving Mills, Sholapur have provided 90 per cent of their workers with (housing) accommodation. The rooms are of different sizes and the monthly rent varies from Rs. 1/8-/ to Rs. 5/- per block.

There are 250 single rooms without verandah, 408 rooms with verandah. The structure of tenements is of stone, brick and mortar. The floors are covered with Shahbad slabs, a few rooms have *kutcha* floor. Each room is provided with a window and a ventilator on the top of the door.

The Lakshmi Cotton Mills and the Vishnu Cotton Mills have provided housing for 10 and 4 per cent of their workers respectively. The rent charged is Rs. 1/8/- per room and the accommodation provided is a single room with a verandah. Water supply is adequate and sanitary conditions are satisfactory.

Gokak and Barsi

Only three units, two at Barsi and one at Gokak provide housing for their workers. About 10 per cent of the workers at Barsi and 50 per cent at Gokak live at a long distance from the Gokak village and the employers have had, therefore, to build houses for the employees. The housing colony at Gokak is, perhaps, the best one in the State of Bombay. The workers are provided with two-roomed tenements which are electrically lighted. The total number of tenements built is 1,230 out of which 1,081 are double-roomed and 149 three-roomed and over. There are adequate facilities for supply of filtered and chlorinated water, sanitation and drainage and lighting and ventilation. The rent charged varies from annas 4 to Rs. 1/8/- per month according to the type of accommodation supplied. At Barsi the housing provided contains one room only, the rent charged varying from Re. 1/- to Rs. 2/4/- per month.

Madras—The Buckingham and Carnatic Mills

The mills have built housing colonies for their workers in four villages situated in the vicinity of the mills. The total number of houses constructed is 487. The accommodation available to each worker consists of a verandah, a living room, a washing place and latrine. The villages get their water supply from the municipal mains for drinking and cooking purposes, while for washing and flushing purposes well water is provided. The colonies have an adequate system of drainage and are maintained in a clean and sanitary condition. In the majority of the cases the rent charged is Rs. 1/8/- per month, while for certain houses with larger accommodation, the rent varies from Rs. 3/- to Rs. 5/- per month.

The bulk of the workers have to live in houses owned by private landlords in the vicinity of the mills. The accommodation consists of one or two rooms and a kitchen with a floor area of 50′ × 30′. The houses are extremely over-crowded and six to eight workers are found to live in such houses. Water supply and sanitary conveniences are unsatisfactory. For a small room 10′×8′ and a kitchen, a rent of about Rs. 5/- has to be paid and sometimes workers are forced to pay even Rs. 6/- to Rs. 7/- per month. Some workers live in huts known as *cheris*. Such huts have walls plastered with mud and roofing of leaves. Even for such *cheris*, rent varying from Rs. 1/8/- to Rs. 3/- per month has to be paid.

In addition, the Government of Madras and the Municipal

Corporation have built some 'lines' for some hundred workers in the mills area which consist of a room and a kitchen with common sanitary conveniences and drinking water supply.

Madura Mills

The mills have provided housing for about 1600 workers. The housing colony of this factory known as "Harvepatti Colony" is one of the most unique colonies of industrial workers in the country.

Some six hundred houses have been built in an ideal colony which is almost self sufficing from the point of view of amenities, such as schools, markets, dispensaries, etc. It is laid out with a park in the centre. Each block contains two houses built of *pucca* material with tiled roofing and cement flooring. The accommodation for a family consists of a small open space in front, a verandah, a living room, a bed room, a kitchen, a store, a back-yard with a hand-flushout latrine and common tap for the block.

Each worker is charged Rs. 600 only for the house occupied by him. The system of repayment is the Hire Purchase System and the workman pays Rs. 4 per month as rent.

Meenakshi Mills, Madura

The mills have made no provision for housing the workers. The workers of the mills live in huts or in rented buildings in the vicinity of the mills.

Coimbatore

In Coimbatore, there are no well thought-out schemes for supplying housing accommodation to the operatives, with the result that like some of the older centres of the industry, namely, Bombay, Ahmedabad, Kanpur, etc., slums have come into existence. Only 9 out of the 26 mills surveyed by the L. I. C. have provided housing for about 16 per cent of their workers. The houses are built of brick in mud or lime and tiled with Calicut tiles, and in most cases, they are provided with electric lights. Some mills have constructed only single-room tenements, the rental of which varies from Re. 1/- to Rs. 2/- per mensem, while others have built single-room, double-room, three-room and five-room quarters with a verandah and a kitchen. Latrines are common in the case of single and double room quarters, while in the larger quarters separate latrines are provided. The rent of two-room quarters varies from Rs. 3/- to Rs. 5/- per month and of bigger units from Rs. 5/- to Rs. 7/8/- per month.

The bulk of the workers live in a village about a mile away from the mill. The accommodation available is one or two rooms and a kitchen and the rent varies from Rs. 1/8/- to Rs. 5/- per month. The dwellings are insanitary and badly ventilated. Some workers have constructed small rooms on land belonging to private landlords to whom they pay a ground rent. The company has, however, acquired land for building workers' dwellings on the lines of the schemes at Madura. They have undertaken to advance Rs. 1½ lakhs free of interest to the Harvey Mills Co-operative Housing Society. The aim of the society is to build suitable self-contained houses for workers who by payment of a fixed sum monthly, say Rs. 4, will become the owners of the houses after 10 to 12 years.

West Bengal

The industry has provided nearly 45 per cent of the workers with housing either free or at nominal rent. One of these concerns houses as many as 95 per cent of its total workers. The housing provided is generally *pucca* with either tile or corrugated sheet roofing. These houses are generally of the barrack and coolie line pattern, and are generally one-roomed. There is considerable amount of overcrowding and congestion and the per capita floor space comes to about 30 sq. ft. only. Ventilation is bad and sanitary and drainage arrangements are conspicuous by their absence. There is an inadequacy of latrines and where they are provided they are mostly of the *kutcha* type and never maintained in a sanitary condition. Those living in these houses, if in the Calcutta area, get water supply from taps and from tanks and tube-wells in the mofussil area. Seven of the fifteen units charge no rent while the others charge a rent of about Rs. 1/8/- to Rs. 2/- per month.

Kanpur

Kanpur is the most congested city in the U. P. Its population in 1941 (4,87,324) was nearly double of what it was in 1931. Between 1939 and 1943 the number of registered factories at Kanpur went up from 96 to 158 and the average daily number of persons employed also increased from 56,280 to 103,045 an increase of over 83 per cent within four years. Employment in other directions has also recorded a similar increase. Thus, the population to-day is much larger than it was in 1941 and is estimated to be in the neighbourhood of about eight lakhs.

The problem of housing in Kanpur is considered under the following heads:—

(*a*) Houses owned by the workers.

(*b*) Houses provided by the employers.

(*c*) Houses constructed by public bodies like the Municipal Board or the Improvement Trust, etc.

(*d*) Housing provided by private landlords.

(*a*) It appears that only 3 per cent of industrial workers in Kanpur had built their own houses on land belonging to themselves while another 12 per cent had built on land for which a monthly rental had to be paid. No recent information is available on the subject.

(*b*) According to the Royal Commission on Labour 3,100 quarters had been provided by the employers. The Kanpur Labour Inquiry Committee which reported in 1938, however, stated that " altogether the accommodation provided by employers, consists of about 3,000 tenements which houses about 10,000 persons. Between 1938 and the present time no new workers' quarters on any appreciable scale have been added by the employers."

Of the 15 cotton mills, only eight have some arrangements for housing their employees. Three out of these eight provide free housing accommodation only to members of the watch and ward departments. As regards the remaining five, one mill has constructed 91 houses of which 44 are allotted to members of the watch and ward staff and only 47 to mill workers. Most of these quarters have a room and a verandah. Another mill belonging to the same group has built 45 quarters each having one room measuring 10 ft. × 12 ft. and a verandah. The monthly rent for these quarters is Rs. 2/2/- The Elgin Mills own two Settlements consisting of 156 houses in all. Of these, 100 quarters in Maxwell-Ganj have been purchased by the mill from the workmens' quarters built by the Improvement Trust. The Maxwell-Ganj Settlement consists of A, B and C types of houses. ' A ' type quarters have two rooms, a verandah and a store-room with wall shelves, a *pucca* cooking place, a walled courtyard, with a door and a two seated latrine. These quarters have electric lights for which the workers pay at a concession rate. There is a water tap inside the quarter. The rent is Rs. 6/8/- per mensem. The ' B ' type is the same as ' A ' but it has only one room. The rent for these is Rs. 3/4/- and Rs. 3/8/- per month. The ' C ' type houses have one room and a verandah. The rent is Rs. 2/8/-. B and C type quarters have neither electricity nor water taps. The Elgin Mills Settlement situated on the banks of the Ganges has 56 quarters. They are also of three types.

The two cotton mills, under the management of the British India Co-operative have a common settlement for their workers. The settlement consists of 319 quarters, out of which as many as 310 quarters are single-roomed. The rent charged for these houses is Rs. 1/8/- and Rs. 2/- per month.

The Kamla Town Trust of the J. K. group of mills is constructing a large colony for housing most of their workers. Messrs. Begg Southerland and Co., Ltd., have already acquired plots of land in two predominantly working class localities in the city for constructing

250 quarters for Elgin mill workers and a few plots near Kanpur Textiles Ltd. for building 630 quarters for the employees in that mill.

Sanitation in most of the mill settlements is, on the whole, satisfactory. As single tenements have no latrines or urinals, common latrines and urinals for males and females are separately provided. Water taps have been provided at central places in the settlements. In Kakomiganj water supply is obtained from wells. There are no drains in the compound of these settlements.

(*c*) Houses provided by the Improvement Trust :—The Kanpur Improvement Trust has built 335 quarters out of which 100 quarters were sold to the Elgin Mills and 18 to the Kanpur Cotton Mills.

The quarters are of A, B, C, D and E types. " A " type houses contain two rooms measuring 10 ft. × 10 ft., a verandah 10 ft. × 7 ft. a courtyard 14 ft. × 14 ft., a kitchen 10 ft. × 6½ ft. a latrine and a water tap. The rent for such houses is Rs. 6/8/- per month.

B-Type houses have a room 10 ft. × 10 ft. a verandah 10′ × 7′, a courtyard 10 ft. × 12 ft. and a latrine. The rent is Rs. 3/4/- per month.

C-Type houses consist of one room 10 ft. × 10 ft. and a verandah 10 ft. × 7 ft. The rent for these is Rs. 1/8/- per month.

D-Type houses have one room 12 ft. × 9 ft. a verandah 15′ × 7′, a courtyard 12 ft. × 4 ft. another verandah 12 ft. × 9 ft. and a latrine. The rent is Rs. 4/8/- a month.

E-Type houses have one room 15 ft. × 10 ft., a verandah 15′ × 7′, a courtyard 15 ft. × 12 ft., a kitchen, a latrine and another room on the upper storey measuring 15 ft. × 10 ft. The rent is Rs. 8/- per month.

These quarters were constructed by the Trust for sale to the workers, through their respective mill manager, on a Hire Purchase system. Should a worker desire to purchase any of these houses he has to pay Rs. 9/-, 4/8/-, 3/- and 7/- per month respectively, for A,B,C, and D types of houses for a total period of 12 years.

(*d*) **Houses provided by private landlords**

Over 90 per cent of the total industrial population at Kanpur lives in "*ahatas*" and *bustees* owned by private landlords. Conditions in these *ahatas* are deplorable. Small huts in hundreds, and sometimes in thousands, are constructed with bamboo and tile roofs each enclosing a space of about 10 ft. × 8 ft. The huts are mostly made of mud. There are no verandahs attached to these huts nor are there any drains in the whole compounds. What is more, no latrines are provided.

The Bureau of Economic Intelligence, Uttar Pradesh conducted a general enquiry into housing conditions of mill workers in Kanpur in 1938-39. Their investigations were confined to *bustees* and *ahatas* only. Almost all important *bustees* were covered. The findings of this enquiry largely bear out the observations of the Kanpur Labour Inquiry Committee quoted above.

Since the above survey was made construction has very considerably increased.

Co-operative Housing Society

There are at present no co-operative housing societies for workmen. The co-operative credit societies in Elgin Mills and in the groups of mills under the British Indian Corporation, however, advance money for house building.

Empress Mills, Nagpur

The Royal Commission on Indian Labour have made references to a scheme of the Empress Mills, Nagpur, of building a model town which is about two miles from the mills. At the time of the Commission's investigations, the scheme was in its infancy but, according to their information, the company intended to spend 25 lakhs in developing a model town containing about 1,500 detached houses in a sanitary, clean and airy environment. At the time of the investigation by the L. I. C. it was found that the company had built only 48 houses and the workers 240. Advances are given to the workers to build their own houses. These are repayable in about 5 years at the rate varying from Rs. 8/- to Rs. 14/- per month.

Ahmedabad

The working classes in Ahmedabad mostly live in the outskirts of the city. The housing is supplied by (1) employers, (2) the municipality, (3) the co-operative housing societies, and (4) by private landlords. The employers' housing falls into two classes: firstly, tenements provided by individual mill and secondly, those built by the Ahmedabad mills housing societies. It is seen from the General Wage Census Report published by the Government of Bombay in 1932, that out of the 79 mills, 40 were reported to provide housing accommodation for their employees. The total number of tenements provided was 3,368. The most common rent charged was Rs. 4/- to Rs. 5/-, the lowest and highest being Rs. 1/1/- and Rs. 8/- per month respectively. Out of the 16 mills surveyed by the L. I. C. only six had at that time provided housing accommodation for approximately 4 per cent of their employees and the rent charged per tenement varied from Rs. 1/8/- to Rs. 4/- for a single room and Rs. 6/- to Rs. 8/- for two rooms. Most of these are single room tenements with a verandah outside, the dimension of the room being 12 ft. × 12 ft. in most cases and that of the verandah 4 ft. × 12 ft. Usually these are *pucca* structures with low plinths. There is no drainage and the compounds are filthy. The number of latrines provided is mostly inadequate and there are no separate arrangements for the supply of water.

The Ahmedabad Mills Housing Company Ltd., an organisation promoted by the millowners, has built about 800 tenements at the total cost of Rs. 2,44,000 and the gross income of rent was Rs. 20,642. The rent charged by the housing society is Rs. 4/8/- per month, accommodation provided consists of a room 14 ft. × 12 ft. in size, a kitchen 6 ft. × 12 ft. and an open verandah 7 ft. × 12 ft. in size. On the whole, these tenements are much better than those supplied by individual mills.

Government has not so far provided any housing scheme for the workers in Ahmedabad, but they built about 850 tenements during 1949-50 and had plans to build many more. However, the local municipality has provided' 521 tenements which are let out to those workers whose earnings are below Rs. 75 per month. The rent charged per tenement was Rs. 5/8/- per month in 1943 but it was subsequently raised to Rs. 7/8/-. These tenements consist of a room, a kitchen and a verandah. The roof is made of cement concrete and the walls are of brick and of cement lining. The floors are well paved and on the whole this is an improved type of housing judging from the present standards in Ahmedabad.

The Textile Labour Association has built a colony of some 60 tenements of improved type as a model to be followed by the municipality, the employers, etc. This colony was erected in the year 1931 on a co-operative basis. The houses were erected on a spacious piece of land and laid in rows with wide roads between them. The tenements consist of two rooms with a kitchen 8 ft. × 7 ft., a verandah 19½ ft. × 7 ft. and a courtyard 19½ ft. × 18 ft. The tenements were let out to workers on a Hire Purchase system and the workers owned their homes in a period of about 20 years.

After the establishment of this colony textile workers in Ahmedabad began to take interest in the formation of co-operative housing societies. So far, the spinners in Ahmedabad mills have formed six co-operative housing societies and constructed 400 tenements. These societies take loans from the co-operative bank and pay the debt by instalments. These tenements are of a family type consisting of one living room 15 ft. × 8 ft., a small room 8 ft. × 10 ft., a kitchen 8 ft. × 8 ft. and two covered verandahs 23 ft. × 8 ft. and 10 ft. × 8 ft.

The majority of the workers in Ahmedabad, however, live in the suburbs of the city built by private landlords. According to the Municipal census for the year 1941, 74.9 per cent of these were single-room tenements. Usually, there is a verandah attached to the living room and the dimensions of the living rooms are 12 ft. × 12ft. and of the verandah 6 ft. × 12 ft. The average number of persons per tenement is about four. According to the Family Budget enquiries made by the Bombay Labour Office, the average rent of one room in 1935 was Rs. 4/12/1 per month, the average for all types of tenements being Rs. 5/2/- per month.

Some of the workers live in huts without plinth and with a low roof. The conditions in these are deplorable. Recently, as in other industrial centres in the country, the house problem in Ahmedabad has become extremely acute. As compared to the year 1921, the population of Ahmedabad had increased by 41.4 per cent in 1932. Since then it is reported that there has been tremendous addition to the population. The housing activity has, however, not been keeping pace with the growth in the population and since the out-break of the World war II building activity is more or less at a stand-still owing to the difficulty of getting building materials. Since 1939, there is in force in Ahmedabad a rent restriction Act. This has partly helped to remove the congestion and insanitary conditions of the houses of the textile workers.

The Model Mills, Nagpur

(i) Out of nearly 4,000 workers on rolls of the mills in both the shifts about 450 are residing in labour *chawls*. The percentage of workers housed thus works out to 11.2. A nominal rent of Re. 1/-is charged per one room tenement.

The mills have double floor *chawls*, each room having an area 10′ × 10′ and 11′ high with one door 6′ × 3′ and two windows. *Chawls* have Ahmedabad pattern tiled roofs. There are in all 512 rooms divided into 11 *chawls*.

The other unit in Nagpur has built a few double-storeyed *pucca chawls* near the mills in which about 500 workers are housed. Each room is about 10 ft. × 10 ft. and the rent charged is Re. 1 per month. There are common arrangements for water and sanitation. One of the units at Akola has built about 240 tenements for the workers. These are of different types. Some are *pucca* with tiled roofing, some with tin roofing and some *kutcha*. Most of these are in an extremely insanitary condition and are dark and ill-ventilated. The rent for the *pucca* quarter is Re. 1 per month and for *kutcha* annas 6 per month.

Rekhchand Gopaldas Mehta Spinning and Weaving Mills Akola (Berar)

This mill has some *chawls* just adjacent to the mill premises providing housing accommodation to about 15 per cent of the total number of workers. There are 233 single rooms with verandah built in *kutcha* and *pucca* construction. The rentals of the rooms are Rs. 1/8/- for brick construction, annas 8 for tin construction and annas 6 for *kutcha* construction.

Indore

Except for one mill which employs over 6,000 workers, no other mill has provided any housing for its workers. The mill which has provided housing has 127 quarters with accommodation for about 400 workers. Some of these quarters have a room 10 ft. × 8 ft., a kitchen and a verandah and the rent charged is Rs. 5 per month. Most of the other quarters are rented at about Rs. 3 per month. These contain only a room and verandah. Water has to be obtained from wells and the sanitary arrangements are none too good.

Baroda

The housing condition of the workers in Baroda appears to be unsatisfactory. Three of the mills have provided housing accommodation for about 10 per cent of their workers and the rent charged per tenement varies from As. 12 to Rs. 3 per month. Most of these are single roomed tenements, the dimension of the rooms varying from 10 ft. × 6 ft. to 12 ft. × 7 ft. On an average there are four to five persons per tenement. Some of these structures have hardly any plinth. Usually common taps are provided for the supply of water.

Those not living in employers, houses live in tenements owned by private landlords. These also are mostly single roomed tenements, the average size being 8 ft. × 8 ft. and the rental varying from Rs. 2 to Rs. 2/8/- p. m. In some cases, the workers have to depend on the municipal water taps in the streets.

Bangalore

All the cotton mills in Bangalore supply housing to a small proportion of their workers. In the case of two units, however, housing is supplied only to workers in essential departments such as watch and ward, the mechanical section, etc. One of the bigger units supplies land, free of rent to the workers for building huts, while another large unit which has built about 300 houses in the mill village called the Binnypet for its permanent operatives houses about 12 per cent of its permanent labour force. This unit has a housing scheme of its own and has reserved 44 acres of land for the construction of about 900 houses. At present it has built about 300 houses only. It has three types of housing, each containing at least a living room, a kitchen and a courtyard, while the better types contain more than two living rooms, a kitchen, backyard and flush-out latrines. The size of the rooms is 6'-4½" × 9'-9" and of the hall 5'-7½" × 9'-9". The buildings are constructed of bricks with mangalore tiled roofing and *kutcha* flooring. Each room is provided with a window and the hall with a ventilator. Water taps are provided at the corner of each block on the basis of one tap for every 15 quarters. The houses are not supplied with electric lights but street lighting is provided. The rent charged varies from Rs. 1/4/0 to Rs. 2/- a month.

The majority of the cotton mill workers in Bangalore live in huts erected either by themselves or by the municipality. The land on which the huts are constructed usually belongs to the mills, the municipality or to private parties.

One of the relatively small units situated about 7 miles from Bangalore and employing about 700 workers has also provided houses for about 200 workers. They are fairly *pucca* structures with mangalore-tile roofing. 166 are one-room tenements with a partition in each room and a backyard and the rest two-room houses. The rent charged is Re. 1/- and Rs. 1/4/0 per month respectively. No lighting and water arrangements have been made. Water is supplied from wells built nearby.

Workers belonging to depressed classes are given land and building materials for putting up huts. There are 32 such huts. No rent is charged. The other mills have not supplied housing to workers. It is reckoned that nearly 53 per cent of the families occupying tenement houses live under conditions of over-crowding. The housing conditions in the employers' quarters can be regarded as fairly satisfactory but those in huts require immediate and radical improvement.

In Trichur, the majority of the workers are from the town itself where they have their own houses or live in rented ones. The question of employers' housing, therefore, does not arise. The management, however, sometimes gives advances to those who are desirous of building their own huts or houses. A few houses have been built by the management for labour recruited from outside sources. The accommodation provided is a living room, a kitchen and a verandah. The arrangements for the supply of water and sanitation are common.

Sri Krishnarajendra Mills Ltd. Mysore

Houses are provided for workers coming from the rural areas to live in the Labour colony close to the mills. Out of the total labour strength of 2,600 more than 50 per cent of the labour force have their own houses in the city and out of the rest about 400 or 30 per cent are provided with living accommodation in the Labour colony. The total population in the colony including workers and their dependents is about 700. The total rent collected per month is Rs. 350 for 196 tenements of two rooms each. Types of houses at present are type "C' for families and type 'D' for unmarried workers. The total floor space covered by the 196 tenements being 36,000 sq. ft. and the population of the colony being 700, average floor space available per head is about 52 sq. ft.

CHAPTER XXXIII

JUTE MILLS

Bengal

There are in India about 100 jute mills employing 3,29,429 workers. The industry is mainly concentrated in West Bengal and out of the total labour employed as many as 3,07,350 are employed in West Bengal.

As regards housing, the Royal Commission on Labour (1930-31) found that in 53 mills 41,000 houses had been built by the employers to accommodate about 1,31,000 workers. The various companies were giving accommodation to 30—40 per cent of their workers. The Commission remarked: "Most of these houses are built in back-to-back rows and consist of one room with a verandah in front in which cooking and washing is done. In the better lines the space between the rows is paved with brick and drained. Windows and roof ventilation are also provided in some types and artificial lighting has been extended to a number of lines. A large number of septic tank latrines have effected immense improvements in conservancy and sanitation. Water supplies are usually provided by the mills; a number of deep tube-wells have been sunk, and in other cases water is pumped from the river and purified before distribution. The creation in the mill areas of small municipalities, many of the members of which are associated with the jute industry, has done much to improve general health conditions in difficult circumstances, and substantial sums have been expended with benefit to all concerned."

The position has since further improved. Detailed statistical information relating to housing is not readily available, but the Indian Jute Mills Association have given results of a very full survey which was made in 1937. The accommodation provided by individual employers varies widely from mill to mill. A few mills have added a few rooms and quarters for the workers and effected some improvements in the designs. Information obtained by the Association from 61 mills shows that the percentage of workers housed by individual mills varies from 7.9 to 100 and the total number of rooms and quarters supplied by the mills for housing their work people comes to about 42,500. Some of these rooms are, however, used for purposes other than living accommodation. The housing accommodation supplied by 61 mills is either of the *pucca* or *kutcha* type. In 5 mills accommodation is provided up to 25 per cent of their workers, in

14 between 25 to 50, in 11 mills from 50 to 75 per cent and in 5 from 75 to 100 per cent.

Figures obtained in 1944 from 19 units providing housing accommodation to their workers showed that only 39 per cent of the labour force was housed by the employers. Where there are private *bustees* roundabout the mills, the employers do not generally make any housing arrangements for their workers. Some of the mills situated outside Calcutta, however, have provided housing for about 50 per cent of their employees as no private housing was easily available.

The housing provided by the employers is usually of the barrack back-to-back type of quarters. The average floor area of the quarters is approximately 100 sq. ft. varying from minimum of 67.3 sq. ft. to a maximum of 110.6 sq. ft. In the case of some units, however, the rooms are 13 ft. × 10 ft. or 12 ft. × 10 ft. Every type of quarter has a small verandah about 3 feet wide, a portion of which is used as a kitchen.

All *pucca* rooms are built of brick. Floors are made of brick cement or packed earth ; walls are made of brick with sand plaster and roofs are made of beaten *soorki*, reinforced concrete or asbestos corrugated sheets. The *kutcha* rooms have floors of earth, walls of split bamboo mud-plaster and roofs of tiles or of thatching.

In the large majority of the tenements the floor space available for a worker and his family is less than 100 sq. ft. The accommodation consists mostly of back-to-back type huts with a common verandah about 3 feet wide, a portion of which is used as kitchen. The Industrial Tribunal appointed by the Government to adjudicate in the dispute in the jute mill industry condemned the back-to-back huts in the following words :— "We are perfectly convinced that this type of housing deserves the gravest condemnation and we feel that the sooner this type of dwelling for workers is abolished the better for all concerned."

Owing to the congestion and overcrowding in these quarters, weather permitting, workers prefer to sleep outside either on the ground or on cots. Arrangements for latrines and urinals are extremely inadequate and those too are kept in a most insanitary condition. In recent years some good housing colonies for jute mill workers have sprung up and one of the best is the Birla Jute Mills housing colony which houses about 43 per cent of the employees of this mill in *pucca* quarters numbering about 1,200.

The system for the allocation of mill quarters varies from mill to mill and either of the following two methods is followed in allotting them; (1) on application, or (2) in rotation.

The effectiveness of the supervision of the housing colonies also differs widely from mill to mill according to the type of staff entrusted with this work. For instance, some mills have a regular medical staff, sanitary inspectors or welfare officers for this purpose, while in other mills *darwans*, *jamadars*, *sirdars*, clerks or even sweepers are responsible for the cleanliness, sanitation, etc., of these colonies, although, of course, the Manager or the Engineer periodically supervises these lines.

There is no uniformity in regard to the rent charged by the different mills. In some cases rent is charged on a weekly or monthly basis, the latter system being the more common of the two. Rents of *pucca* rooms vary from annas three to rupees two per month and of *kutcha* rooms from annas two to annas twelve per month. In the case of a large proportion of tenements the rent varies from annas eight to annas twelve per month.

The workers who are not supplied with employers' housing live in *bustees*, details about which have already been given. Most of these are huts containing two or three rooms. They are built of bamboo walls plastered with mud and covered on the top with grass of some type. Some others have roofs of corrugated iron sheets. The dimensions of some of the rooms are either 6 ft. × 8 ft. or 8 ft. × 8 ft. The surroundings are most filthy. The inmates get their supply of drinking water from the street taps. Some type of latrines are constructed a few yards away from these tenements but they are generally in a stinking condition. In the midst of these *bustees* there is usually an open tank with dirty water. This is fruitful source for breeding mosquitoes. These *bustees* are owned by private landlords. The rent of a room 8 ft. × 8 ft. is about Rs. 3 per month

The Indian Jute Mills Association is one of the most powerful organisations of employers in this country and has been able to take concerted action regarding the hours of work, sealing of looms etc. In regard to the housing of the workers, however, it has not so far made any serious effort, although it has started taking steps to obtain expert advice on better standards of housing for the workers. The employers, the municipalities and the Government should undertake measures to provide more adequate and sanitary dwellings for jute mill workers.

U. P.

There are three jute mills in U. P. (2 in Kanpur and one in Gorakhpur district), the number of workers being about 7,000. The larger of the two units at Kanpur has built a housing colony for workers. The other unit has provided accommodation for about 125 workers in double storeyed *chawls*. Most of these quarters contain a room 10 ft. × 12 ft. in size with a verandah. The rent charged varies from Re. 1 to Rs. 3 per month. There are common arrangements for water taps and latrines. Considering the present-day congestion in Kanpur the housing accommodation provided is not too unsatisfactory.

Madras

There are four jute mills in Madras Presidency employing about 6,500 persons. Nearly 25 per cent of the workers are housed by the Company. The total number of houses constructed is 487, all of which (excepting 8) consist of single rooms with a small verandah in front. Most of these houses are built of mud walls but are well plasterd, with roofs of either country or quilon tiles. The workers' quarters are built in lines. There are 26 such lines. Common latrines are provided at the end of each line, with a partition in the middle, for males and females. The rent of the single room quarters is annas 8 per month.

The number of persons living in each worker's quarter varies from two to six. On the whole, the housing colony is clean and well maintained, although the dwelling accommodation for a family is somewhat inadequate as most of the rooms are only 16 ft. × 11 ft. in dimension.

The company has framed certain rules for the allotment of the company's houses. The workmen living in the quarters do not seem to possess any tenancy rights because, according to these rules, " the occupation of a house by an employee shall not constitute him a tenant and the monthly payment by him shall not be a rent but only a charge for use and occupation, which monthly payment shall be made in advance on the 1st or 16th day of each month."

There is a jute mill at Nellimarla in Vishakhapatnam district. The factory has housing colonies in three villages (the west village, the east village and the north village) in the vicinity of the mills. In all 402 houses (*pucca* structures with tiled roofing) have been constructed.

The quarters for the workers consist of 380 houses, each containing a room 12 ft. × 10 ft., a verandah 5 ft. × 12 ft., a kitchen 5 ft. × 12 ft. and a courtyard 8 ft. × 12 ft. There are common latrine arrangements for males and females. On the whole, the sanitary arrangements seem to be satisfactory. Two to five persons live in each house and the rent charged is Re. 1 per month. The total number of workers housed is about 400 or 20 per cent of the total labour force.

CHAPTER XXXIV

PLANTATIONS

Planting is a unique industry wherein modern methods of industrial production have been successfully applied to certain types of agricultural crops, thus overcoming the agronomic weakness evident in other forms of agriculture in India and at the same time avoiding the various disadvantages of urban, factory-based manufacturing industries. The plantations are scattered along the sparsely populated hill and forest areas and most of its labour problems as well as the possibilities of their solution arise equally from this fact. Each estate is a complete productive and administrative unit with a complement of technical, managerial, clerical and manual workers with their families settled upon it, and forming what may be called a commune. The plantations have all the natural facilities to hand, which when utilised scientifically and with vision, can provide its employees all the material conditions necessary for a full and happy life.

Plantation labour conditions have undergone great changes during the last ten years, although they have been uneven, unco-ordinated and largely unmeasured. Away from public notice and with strong managerial traditions developed over a long period, the plantation labour conditions differed from estate to estate and from one planting district to another. Each planter was given wide authority by the then Directors at Home (U. K.) or by their agents in India who had their offices on the coast. Housing standards ranged from mud and bamboo hovels to semi-detached cottages and medical help from thinly stocked dispensaries served by unqualified hands to costly well equipped and well staffed modern hospitals. Under certain managements notable progress has been made in the matter of housing, medical help, schools, creches and canteens.

Employment in the plantation industry is a highly fluctuating affair, depending upon the vagaries of internal and international demand. Tea gardens account for the largest number of plantation workers in the plantation group. Thus, in 1947, the total employment in tea gardens was 983,476.

Coffee

Next to tea, coffee plantations employ the largest number of workers. The number of workers employed in 1947 was 152,077.

Rubber

Rubber plantations come next in importance. The total employment in 1947 was 44,838.

Provincial distribution

The tea plantations are principally located in Assam and Bengal in the north, though a few estates are to be found in the Punjab, the U. P. and Bihar. In the south, tea-gardens are to be found in Madras and Travancore. Nearly three-fifths of the total number of workers employed are to be found in Assam, one-fifth in Bengal, and one-fifth in all other areas. In Assam, the two main planting areas are the Assam Valley and Surma Valley, while in Bengal, the tea estates are mainly situated in Darjeeling, in the Terai and the Dooars.

The coffee plantations are located mainly in Madras, and Travancore-Cochin States. In 1943, the number of workers was 38,584 in Madras (State), 13,700 in Coorg, 60,620 in Mysore, 981 in Travancore and 1,549 in Cochin. As regards rubber plantations, they are situated in Madras, Coorg and the Trvancore-Cochin States. In 1942, there were 6,319 workers in Madras (State), 1,443 in Coorg, 31,353 in Travancore, 7,590 in Cochin and Mysore. This shows that the largest number of workers employed is in Travancore-Cochin.

The Royal Commission on Labour found the working conditions in plantations pretty bad. Most of the houses constructed had mud plaster, thatched roof and repairs were carried out by the labourers themselves. Houses were in long blocks of 8- 12 rooms built back to back. The Commission suggested that they should be suitably spaced out, should never be back-to-back and that suitable verandahs should be added. Plinths were seldom provided and considerations of light and ventilation frequently ignored. The Commission made elaborate recommendations regarding provision of better types of houses with adequate space, ventilation and light, latrines, drainage and other sanitary arrangements. Despite these recommendations no appreciable improvement in housing has taken place.

The problem of housing the workers in the plantations markedly resembles as well as differs in some respects from that in the mines. The management has to provide housing and look after health and sanitation as the labour if recruited from considerable distant places. The plantations being situated in high altitudes and in areas where the rainfall is abundant, if not excessive, the tasks of the management in making satisfactory arrangement for health, housing and sanitation are more difficult than in the mines. On the other hand, unlike mining areas there is no dearth of land in the virgin jungles. In the plantations the usual housing accommodation adopted is of the 'bustee' type. Long lines of barracks with the iron roofs and brick walls or bamboo huts with thatched roofs are built usually along the banks of streams or small channels, resulting in congestion, lack of light and ventilation, and insanitation. There are hamlets consisting of small groups of separate huts scattered among the cultivations on high and low ground, the coolies building their huts on receipt of advances from the gardens. The lanes are narrow and zig-zag and littered with garbages and washings. There are no separate cowsheds, an adjoining room serving to shelter the animals. The huts are built at all angles, in short or long blocks as space permits and also back to back. In the Surma Valley in Assam, the 'bustees' are inundated every year by floods from rivers and channels thus causing serious hardships to men, women and children. In the Darjeeling tea estates and in the plantation occupying hill sides, as in Coorg and Travancore, the lines of labourers' huts are similarly located on sites lying on the banks of streams, and dangers of water-logging or inundation are equally recurrent. No arrangement has been made for bathing and washing in the plantation *bustees*, although piped water supply is found in a number of gardens. Latrine accommodation is conspicuous by its absence and the labourers use the field and the jungle for nature's calls. The sudden out-breaks of cholera in an epidemic form and the prevalence of hookworm disease testify to the dangers of lack of provision of latrines. Due to the absence of adequate drainage malaria and pneumonia become epidemic causing a heavy mortality, especially among women and children. In both Assam and the Bengal Dooars the scourge of insect out-breaks also can be imagined only by those who have gone to these jungles in the long rainy season.

Briefly speaking, in the plantations, where special attention is necessary for the adequate housing of the workers since they are recruited from considerable distances and are unaccustomed to the heights (plantation of tea, which is the predominant crop, ranging from 2,000 to 6,000 feet above sea level), though improvement has taken place, conditions are not what they should be. The single room tenement seems to be the rule, and there is usual complaint of inadequate space, little light and ventilation, no plinths and hardly any facilities for bathing and washing. A detailed survey of the existing housing facilities has been attempted below.

There are three main types of houses—(1) entirely *kutcha,* (2) semi-*pucca* and (3) *pucca.* About 90 per cent of the houses in the sampled gardens are of the *kutcha* type. The average size of a house is 15′ × 12′, each family getting a separate house. There is natural ventilation in *kutcha* house, though they have generally no windows and verandahs. *Pucca* houses have a window as well as the ridge—ventilation and ventilation spaces between top walls and roofs. Briefly the houses in Assam have no plinth and adequate accommodation. Many of them are built in low lying areas which get waterlogged. The new *pucca* houses built by some of the gardens have a kitchen with chimney and septic tank latrines.

Plastering and repairs are usually done by the labourers themselves, thatch being supplied free by the garden, once in 2 or 3 years. The one-roomed house is made to serve the purpose of living room, kitchen and sleeping room. Lighting is by kerosene lamp. The Whitley Commission recommended the establishment of Boards of Health and Welfare Centres who should lay down standard minimum requirements of housing and have the power to condemn insanitary houses. The Commission's recommendation that as electricity is available in many plantations, a few standard lamps should be provided in and around the housing areas has not been acted upon.

Water supply is by open surface wells which are in many cases not covered or fitted with pulleys. Tube wells existed in several gardens and were said to be gaining ground fast, until shortage of supplies caused by the war arrested development. *Kutcha* drains are generally common in the lines and *pucca* drains are a rarity. The sanitation position is extremely unsatisfactory. Very few bathing and washing places have been provided in spite of the Royal Commission's suggestions for a serious attempt in that direction. The Whitley Commission recommended that adequate latrine accommodation should be provided in factories on plantations and that their exemption from the provisions of Section 13 of the Indian Factories Act in Assam should be withdrawn. While a few factories have been provided with even septic tank latrines, the position is extremely poor in plantations. Only a few gardens, especially in the Doom Doom circle, have septic tank latrines for the use of the garden labourers. In view of the very high incidence of hookworm (in some gardens the labour force was infected cent per cent) with consequent debility among the labourers, the necessity of providing adequate latrines in all the gardens cannot be over-emphasised. Managers, however, maintain that no efforts were made to keep the latrines in proper order or to build new ones as the labourers did not use the latrines provided for them. As the experience in South Indian plantations shows, labourers can be persuaded to use latrines, provided they are kept clean and a separate latrine is provided for each family. Even in Assam bore-hole latrines had proved very popular and were being used by labour of all castes. The bore-hole latrine is fundamentally a family latrine. There are three essentials, the ignoring of any of which in all probabilities results in failure of the system to become popular with the labourers. Firstly the latrines must be properly constructed; secondly they must be introduced to the labourers with a campaign of propaganda and education; and thirdly one latrine must be provided for each household. What type of latrines should be provided depends on several factors such as the condition of the soil, water level, position of water supply, etc. The advantages of a borehole latrine are the cheapness and ease with which it can be constructed in the majority of soils. This type may prove a solution to the problem of providing conservancy for tea garden populations in that each house-holder can be provided with his own installation at a low cost. On the few estates where owing to the nature of the strata it is difficult to bore or dig a deep latrine or where sufficient space is not available to provide each family with a latrine, the provision of septic tank system, preferably with automatic flush, should be tried.

West Bengal

The Bengal aspect is a more gloomy one. Workers have to live in small houses with low roof and insufficient light, walls of bamboo matting with mud plaster which falls apart after a short time, exposing the inmates to the blast of the chilly wintry wind. In the Dooars, houses are built in barrack lines scattered all over the garden, and in many cases on badly drained sites. The average size of a house is 225 sq. ft. one house being given to each labourer. The length varies from 14 ft. to 26 ft. and the breadth from 11 ft. to 14 ft. Inside the house, labourers make partitions with the usual bamboo matting or plywood to suit their requirements. There is lack of proper light in the houses.

Houses in the Terai are similar to that in the Dooars except they have practically no plinth. In Darjeeling, houses are built of wooden walls and corrugated iron sheet roof, but houses built since 1939 are of bamboo and mud walls with thatched roof as on the plains. The latter types of houses are preferred by the workers as they are more comfortable in winter. The floor is *kutcha* and gets very damp in the rains. The average height of the room is not more than 10 ft. and this coupled with lack of ventilation makes the houses very dark and stuffy. Some houses have a small verandah. The atmosphere inside the house becomes very unhealthy. Most of the houses are constructed haphazardly without any plan. In the Dooars, the water supply is adequate and is either from *kutcha* wells or from pipes which carry spring water to the lines. Many gardens have provided concrete reservoirs in the lines for storing water. A few *pucca* wells were also found. Water supply is adequate in the Terai where 'Raniganj Ring' wells have been dug up near lines. In the majority of the gardens in Darjeeling no special arrangements have been made for supplying water to the workers who get it from the small springs that flow through the gardens. There is a complete absence of proper drainage system in all the areas. Of the 2,506 families investigated recently, 88.5 per cent were living in one-room huts and 9.8 per cent had two rooms each. The average number of persons living in one-room tenements was 4.2.

South India

Labour conditions in the south Indian plantations differ very considerably from those in Assam and West Bengal. The southern industry is distributed over a wide area. The workers are divided according to the varietal distribution of the crops, a division that does not occur in the north-east Indian plantations where only tea is grown and that is harvested only during a part of the year whereas in the south it is an all-year-round crop. The annual termination of labour contracts, pre-employment advances and system of annual payment of wages are some of the outstanding features of labour conditions in the south Indian plantations.

Housing is provided for all workers other than casual and local labourers. Usually, a room of 10′ × 12′ is provided for 4 to 5 workers which cares for living, sleeping, storage of food and fuel. Many rooms built during last ten years have a separate kitchen, and in some estates, a kitchen has been added to old rooms. In the Kanan Devan estates, in the Annamallais and the Wynaad, living rooms are 10′ ×12′ kitchen 12′ × 6′ and a front verandah 12′ × 5′. The walls are of brick or of broken rubble with mortar or cement. Two windows and two doors, one each for the living room and the kitchen are provided. Sometimes a dwarf wall is built in front of the verandah to keep out heavy showers. The roof is of asbestos or corrugated iron sheets or tiles. Smoke-vents on the ridges of the roofs, smoke or ' corol ' tiles and in some cases chimneys are provided to let out smoke. The newly built lines have concrete 'aprons', 8′ wide sloping from the base of the tenement and ending in a concrete drain running round the house. At each end of the lines is an enclosed bathroom, one for men and another for women.

In central Travancore and the Nilgiris, housing arrangements do not compare with the progressive types of houses in the Kanan Devans or the Annamallais. In many of the estates in the two districts housing leaves much to be desired. Windows are absent and the floor is uneven with pipes and holes. In some cases, walls are of bamboo matting. Drains are not properly maintained.

Overcrowding is the most serious problem in the housing of plantation workers. The average accommodation provided is one room for 4½ to 5 workers. The number of persons in each room is 8 to 10 and sometimes up to 14. In the new type of lines built with separate kitchen, the purpose for which the kitchen is provided is defeated by allocating the kitchen and the living room to two families.

Many of the estates in Kanan Devans, the Annamallais have water laid to the labourers' quarters through pipes. In central Travancore, the Nilgiris and the Wynaad, some estates have piped water, while others depend on wells or streams for their supply. At present in many estates wells and springs which supply water are situated far from the workers' quarters.

In the Kanan Devans, the Anamallais and the Nilgiris, all estates provide latrines for the use of the workers. They are generally of the borehole type. In central Travancore and Wynaad, latrines are provided only in some estates. In south Travancore, Mundakayam and Malabar, latrines are not generally provided.

The Punjab and Uttar Pradesh

In the Kangra Valley nearly 10 per cent of the workers live in quarters provided by the planters. The houses are mostly *kutcha* one-room tenements with mud or brick walls and corrugated iron and slate roofs. The rooms are 14′ × 14′ and have no windows. On an average, 4 to 5 workers live in every room. In Dehra Dun nearly 50 per cent of the workers live on the gardens in houses provided by the planters. These houses are also *kutcha* with mud walls and thatched roofs. The rooms are generally 12′ × 12′ × 10′. A few estates in Almora have provided for their labour *pucca* double-storeyed barracks with a kitchen-room attached to each at the back. In all these areas, water for drinking and washing is obtained from springs or streams on the estates. Latrines are nowhere provided.

(*ii*) Coffee Plantations

In Coffee estates housing conditions are generally bad. In the Shevaroys, Coorg and Mysore, the labourers are housed worse than cattle. Back-to-back barracks built 40 to 50 years ago house the workers. The rooms are 10 ft. × 10 ft. or 10 ft. × 8 ft. with no windows or entrance for light and air. There are no verandahs. The houses stand on a rickety foundation. The walls are of mud and are full of holes and crevices which proclaim that they have not seen repairs for years. In the rains, dampness makes the walls sodden and there is danger to life and limb, as there is no knowing when the whole structure would give way, burying the inmates under the debris. However, in Coorg, the Consolidated Coffee Estates have launched a new building programme for housing their workers and a few blocks of houses of two quarters each have been built on many of their estates. The houses consist of a verandah, a living room (12′ × 10′) and a kitchen (12′ × 6′), built of brick and mortar, and have tiled roofs. The living room has an extension to the side of the verandah 6 ft. × 6 ft., which can be screened off and formed into an additional room. Two doors and two windows are provided for the living room and a door and a window for the kitchen. There are chimneys in the kitchen to let out smoke. Bathrooms are not provided. Even piped water supply is rarely found on the coffee estates and workers have to depend on wells and springs. Nor are latrines generally seen on these estates.

(iii) Rubber Plantation

On rubber estates, in Travancore the quarters are generally built in barracks, most of the larger estates provide an enclosed common verandah at the back which is utilised for cooking purposes. In Malabar, separate cooking places are not generally provided. Rubber estates being mostly in the plains and not subject to severe monsoon, the houses are usually provided with large windows. Most of the workers on rubber estates live single and 6 to 8 persons occupy one room 12 ft. × 10 ft. or 10 ft. × 10 ft. A few back-to-back barracks without proper ventilation were also noticed. On the Yendayar estate in Mundakayam, the houses for the workers were good. The houses were built in blocks of two quarters, each quarter having a front verandah, a kitchen and a bathroom. A sink 2 ft. × 2 ft. with an outlet for water is provided in the kitchen. Water taps and latrines are provided. In smaller estates, mostly Indian-owned, employing from 10 to 15 workers, the lines are often thatched sheds with walls of grass. No separate kitchen is provided and sometimes repairs of the house is the responsibility of the workers themselves who are mostly local people. Water supply is generally from open wells, streams and rivers.

Recent steps

It was felt that steps should be taken immediately to draw up a proper scheme of housing so that all workers may be provided over a period of 10 to 15 years with proper houses. Efforts were to be made to minimise the use of steel, cement, etc., and utilise wherever possible materials locally available. Considering that houses have to be built in areas lying in close proximity to forests, there should not be difficulty in obtaining timber, bamboo and roofing material.

The question was, therefore, discussed at the first session of the Tripartite Plantation Conference held in New Delhi in January, 1947. It was then recognised that account should be taken of the scarcity of materials, but it was made clear that the construction of houses could not be postponed. As a first step towards implementing this decision the different Planters' Association in north and south India were requested to prepare plans of workers' houses after examining what type of houses should be built and what accommodation should be provided. Most of the plans forwarded by the Association fell short of standards recommended by the Industrial Housing Sub-Committee of the Standing Labour Committee, and, therefore, could not be accepted by the Government without substantial modification.

The question came up again for discussion at the second session of the Industrial Committee on Plantations in March-April, 1948. The Committee accepted the proposals for setting up Housing Boards for acquiring and developing areas suitable for the construction of houses for workers and for raising funds required for building houses.

The subject was again discussed at the meeting of the Standing Plantation Committee held in September, 1949. The principle that houses should be provided by the employers within a reasonable time was accepted and it was suggested that instead of its being made a legal obligation it should be the moral obligation of the employer to provide the best possible accommodation for his workers. The difficulties of getting materials and the paucity of funds were appreciated but it was suggested that these could be overcome by spreading the housing programme over a number of years. It was also suggested that a Central Plantation Housing Board should be constituted with power to dismantle the existing unsuitable houses and to fix the time for replacing them.

The Hon'ble Minister for Labour, visited the Assam plantations in October, 1948, and urged the necessity of adoption by the industry, on a voluntary basis, of uniform housing standards. Though it had been the policy of the Government to accept the standards laid down by the Industrial Housing Sub-Committee as the necessary minimum, yet, in view of the present difficulties and in order to encourage speedy construction of houses by employers, the Government agreed to allow some relaxation in the plan submitted by the Indian Tea Association. The main deviations from the standards recommended by the Industrial Housing Sub-Committee are stated below:—

	As recommended by the Industrial Housing Sub-Committee	According to plans of the Indian Tea Association
Height of the main rooms upto the ceiling	Not less than 10 feet.	Not less than 8 ft. In the flat roofed house not less than 8 ft. 6 inches.
Total area of verandah	(Total area not given) At least one verandah and preferably both should be not less than 7 ft. wide.	Total area—90 square feet.
Kitchen	Separate kitchens with storage space for food and fuel for all houses.	No provision for a separate kitchen in case of all houses. There will be kitchen in *pucca* houses.

The Indian Tea Association has agreed to recommend to its members to build as many houses to these specifications as circumstances permit.

The Association has also submitted two types of plans for gardens in West Bengal, *viz.*, (*i*) for plains gardens, and (*ii*) for gardens in Darjeeling. The standards prepared for plains gardens of West Bengal are similar to those already approved for the Assam gardens. Its plans for Darjeeling gardens differ from those recommended by the Industrial Housing Sub-Committee as follows :—

	As recommended by the Housing Sub-Committee	According to the plan of the Indian Tea Association (for Darjeeling gardens)
Total area of two rooms	240 sq. ft.	200 sq. ft.
Height of the rooms up to ceiling	10 feet.	9 ft. measured from floor to highest part of the ceiling.
Cubic capacity of the two main rooms	2000 cubic ft.	1500 cubic ft.
Total area of the verandah	Not given. At least one verandah and preferably both should be not less than 7 ft. wide.	Not less than 75 sq. ft.
Minimum space between houses	Not specified	25 ft.
Kitchen.	A kitchen with storage space for food and fuel.	No separate kitchen for all houses. There will be kitchens in all *pucca* houses.

These have been approved by the Government of West Bengal.

The United Planters Association of South India indicated its willingness to cooperate in carrying out a programme of housing if the Government of India were prepared to relax the standards recommended by the Industrial Housing Sub-Committee and to agree to the standards proposed by the Association and approved by the Government of Madras. The Association's plans which provide for only one-roomed tenements have the following deviations from the standards recommended by the Industrial Housing Sub-Committee :—

	As recommended by the Housing Sub-Committee	According to the plan of U. P. A. S. I.
Rooms	2 rooms—200 sq. ft.	1 room—120 sq. ft.
Kitchen	Area not specified	72 sq. ft.
Verandah	At least one, 7 ft. wide.	1 front verandah 4′-6″ wide.
Bathrooms	1 for each tenement.	2 common bath rooms for 4 tenements, one for males and the other for females.
Latrine	1 for each tenement.	*Nil.*
Courtyard	Small enclosed courtyard at the back of each tenement.	*Nil.*
Ventilation	Through ventilation for main rooms.	Through ventilation not possible.
Window openings	10 per cent of floor area	5 per cent of floor area
Height up to ceiling	10 ft.	8 ft.

In the Housing scheme prepared by the Planning Commission, it has been agreed that instead of allotting a two roomed unit to two families, it would be desirable to give each family one living room with a separate kitchen, and a common bathroom and a lavatory for two units. The plan of the U. P. A. S. I., to a large degree, fulfils these requirements and is acceptable with slight modifications. The modifications suggested are as follows:—

(*i*) The rooms should be provided with through ventilation.

(*ii*) The size of kitchen should be raised from 12′ × 6′ to 12′ × 7′ (84 sq. ft.)

(*iii*) Provision of a small court-yard of an area of 23′ × 16′ for each unit. The enclosure need not be a wall, but could be provided by means of a hedge.

(*iv*) One aqua-type latrine at some distance from the dwelling units should be provided for every 4 units.

(*v*) The width of verandah should be raised from 4′—6″ to 5′.

The following decisions were taken at the third session of the Committee on Plantations held in November 1950:—

(*i*) The Housing standards of the Indian Tea Association both for plains and hill gardens were accepted for adoption.

throughout north India, and were proposed to be communicated to them formally.

(*ii*) The Housing plan of the U. P. A. S. I. for single-roomed tenements as modified by the Chief Adviser, Factories was accepted for adoption in south India with the only modification that the provision of courtyards may be omitted.

(*iii*) Notwithstanding difficulties particularly arising from the scarcity of building materials and paucity of funds, it was decided that the employers should construct houses at least for 8 per cent of their labour population every year, *i.e.*, the target to complete the housing programme should be 12-13 years. All Associations of employers were to inform Government of the progress in the matter.

(*iv*) No assurance could be given that the question of granting an interest-bearing loan would be considered. The Employers' representatives requested that the industry should be granted interest bearing loans to enable them to undertake housing schemes on a greater scale. The question was, however, under Government's consideration.

The Indian Tea Association of North India had built 2,92,413 houses up to 30th September, 1951 and proposed to build 29,885 more during 1952. This Association has an adult labour population numbering 6,83,819 persons. Similarly the United Planters Association of South India had constructed 42,636 houses up to 31st January 1951 and proposed to put up 2,754 more units. The total number of resident labour population under this Association is 2,21,017. Of the other employers, the Indian Tea Planters Association has built 31,352 houses in Assam and West Bengal during the period 1947-48 and others built 2,376 units in different States during the same period.

The Indian Tea Association drew up certain minimum housing specifications with a view to launching a voluntary housing plan for the plantation workers in North India. Up to October 1950, the Association had already completed the construction of 8,900 houses in Assam. The Governments of Assam and West Bengal accepted these specifications and the Association had decided to replace during the period of 12 months ending 31st March 1951, about 15,500 houses in Assam or about 8 per cent of the existing houses and, subject to the availability of materials and finances, to continue the same rate of progress in subsequent years. Construction of houses according to approved specifications will also be taken up in the plantations of West Bengal.

The Government of India have passed an Act " The Plantation Labour Act, 1951 " (Act No. LXIX of 1951). Section 15 of the Act makes it obligatory on the part of every employer to provide and maintain necessary accommodation for his workers and their families. Section 16 empowers the Government to specify the necessary designs and minimum standards of the accommodation to be provided.

CHAPTER XXXV

TANNERIES AND LEATHER GOODS

Kanpur

The average daily number of workers employed in tanneries and leather goods industries was 39,609 in 1945, but it came down to 30,395 in 1946.

The average daily employment of workers in the tanneries and the leather goods factories, both regulated and unregulated, in Kanpur is estimated at about 20,000.

The survey of housing conditions of workers' employed in tanneries and leather manufacturing factories made by the Labour Investigation Committee covered 581 houses of which 332 were owned by factories and 249 by private landlords. Employers' houses show superiority to privately owned houses.

The workers' colony of Cooper Allen and Company is known as Allenganj and provides about 800 quarters in which nearly 20 per cent of the company's employees are housed. The rent charged varies from Rs. 1-10 to Rs. 50 per quarter. Employers' houses were predominantly one room dwellings. Among private houses also, the majority (72.7 per cent) were one-roomed.

The general average density in employers' houses was 3.9 persons per room as compared with 3.2 in private houses. But it is to be noted that the average area of rooms in private houses (68 sq. ft.) was smaller than that of the rooms in employers' houses (90 sq. ft.). In one-room and two-room dwellings density in private houses was lower than in similar houses provided by employers by 0.2 and 0.9 persons respectively.

In one-room dwellings the percentage of occupants accommodated was in excess of the percentage of rooms comprised in them. In larger dwellings, the reverse was the case. In none of the houses of both types were subsidiary rooms in existence. But in the matter of verandahs, courtyards and kitchens, the proportion of employers' houses enjoying these amenities is much higher than was the case in privately owned houses. Less than 50 per cent of such quarters had courtyards and kitchens. More than 50 per cent of workers had to live in one room, accompanied in some cases by verandah space. Bathrooms were available only in 10 per cent of employers' quarters and in some of the private houses. In respect of latrines private houses were slightly better. The majority of house-holders in both classes of dwellings had no electricity and water-taps inside their premises. Conditions of drainage and ventilation were very unsatisfactory.

Madras

The average daily number of workers employed in the tanneries of Madras is estimated to be 2,790. All the 267 dwellings of the tannery workers in the three important *viz.*, Pallavaram, Chrompet and Thiruvani Malai, centres were surveyed. Out of the 267 dwellings 201 dwellings have got one room, 64 are two-room dwellings and the rest are three-room dwellings. The total number of rooms in these dwellings was 335 accommodating in all 1,612 persons, of whom 533 were children below 9 years of age. The average density of occupancy in all dwellings was 4.8 persons per room (inclusive of children) with an average floor area of 90.5 sq. ft. The density of one-room dwellings was 5.9 and that of two rooms 3.2.

One-room dwellings constituted the majority of dwellings and had the highest density of occupancy in them, higher than the average for all dwellings by 1.1 persons. There was a complete absence of amenities such as bathrooms, latrines, water supply, electricity and satisfactory arrangements of drainage and ventilation. None of the dwellings had any subsidiary rooms. Over 50 per cent of one-room dwellings had no verandahs, over 73 per cent were without courtyards and over 37 per cent were without kitchens. Conditions in respect of these amenities were only slightly better in two-room dwellings. The majority of these are huts erected by workers on sites provided by employers.

Calcutta

Only a few factories provide any type of accommodation for their workers. These tanneries provide rent-free housing for about 12 per cent of their employees including *darwans*. The houses in some cases are of the *kutcha* type with thatched roof and *kutcha* floor. The ventilation and up-keep are very unsatisfactory. In one factory, rooms for twelve men are provided with *pucca* floors, walls and tiled roofs. The rooms are 10 ft. × 6 ft. and each accommodates two men. In no case is subletting allowed. The Bata Shoe Factory has provided *pucca* houses for 25 per cent of their employees, both married and unmarried. They charge a nominal rent and the condition of the houses is among the best found anywhere in Calcutta. The housing accommodation provided by them consists of 15 two-storeyed family quarters which have a living room, a drawing room, kitchen, bath etc., 9 one-storeyed family quarters, 60 bachelors' quarters, 2 supervisors' quarters, etc., etc.

Workers not provided for by their employers live in rented houses.

in the adjoining "bustees," details of whose appalling conditions have already been given.

In the Bata Shoe Company Ltd., Batanagar, 30 per cent of the workers belong to the neighbouring villages. The company has provided *pucca* houses to about one third of its workers. The quarters are of two types—bachelors' quarters and family quarters. The rent of the former is between 12 annas to Rs. 1/8/- and of the latter Rs. 2/- to Rs. 7/- per month.

Chinese Tanneries

The total number of workers employed in the Chinese tanneries is estimated to range between 2,000 and 3,000. Indian workmen employed in the Chinese tanneries live in the locality, paying rents varying from Rs. 2 to Rs. 4 per mensem for a *kutcha* house with a floor area of only about 150 sq. ft. The walls are built of mud and roofing is of coconut thatch. There are hardly any windows in any of the houses. The doorway is both narrow and low. Water is taken from the nearby masonry wells. There are very few public latrines. Drainage of the surrounding area is exceedingly unsatisfactory.

CHAPTER XXXVI

SUGAR FACTORIES

The sugar industry is one of the oldest industries of India. Under the stimulus of tariff protection the industry has made tremendous strides during the last decade and a half. The average daily employment in both seasonal and perennial sugar factories in different States of India is over 90,000. However, Uttar Pradesh and Bihar are responsible for 92 out of 135 factories, giving employment to 75 per cent of the total labour force and producing about 75 per cent of the total sugar in the country, while the States of Bombay and Madras, though ideally suited for sugar, have not developed the industry to the same extent. The total number of sugar factories in the Indian Union in 1947-48 was 134, out which U. P. had 63, Bihar 29, Madras 11 and Bombay 10.

The housing facilities provided at different centres are given below :—

(*i*) Ahmadnagar District (Harigaon and Tilaknagar)

The L. I. C. investigated 27 sampled units at various centres in India. The total employment in all the sampled units was 22,631 and the average employment per factory comes to 838 workers per day. The Committee surveyed two units in Ahmadnagar the total employment of which was 1594 in 1944. Unlike sugar factories in the U. P. and Bihar, Ahmadnagar factories provide accommodation to almost all the workers.

Roughly speaking, the employers have provided three kinds of houses. The first type is known as ' kopis ' or thatched rooms made of cane tops. These are built by the workers, the materials being supplied by the management. They provide very little shelter against heat and rain and there is an ever-present possibility of their catching fire as cooking is invariably done inside. The second type of houses has bamboo walls plastered with mud, with roofing of iron or tin sheets. The third type consists of *pucca* plastered structures with tile or tin roofing. Some houses are two or three room tenements and are used only for the highly paid *mistries* and other supervisory staff.

Out of the 176 tenements visited by the L.I.C., 166 were one-room tenements, 2 were two-room tenements and 8 three—room tenements. The number of occupants in 176 tenements was 909. The density of occupancy in one-room tenements was 5.2, while that of two-room and three-room it was 2.6 and 1.3 respectively. The average density was 4.7.

A very large majority of workers, 95.6 per cent of the total, live in one-room tenements, which comprise 85.6 per cent of the total habitable dwellings. The average area of a room comes to 108.1 square feet and the area per occupant comes to 23 square feet.

98.3 per cent of the houses had no subsidiary rooms. Verandahs were provided in 52.8 per cent of houses and courtyards and kitchens in 6.3 per cent. Separate bathrooms and latrines exist only in the case of 11 tenements. The workers normally take their bath at the well or inside the living-room and use common latrines or the open fields. Latrine accommodation was inadequate. The main drains were uncovered and *kutcha* with the result that foul smells emanated from them. Sky holes and ventilators are provided in some tenements but they serve mostly as smokeholes, for the cooking is done inside the rooms. *Pucca* quarters in one factory had electric light. The 'Kopis ' or thatched huts had no provision for electric light nor was there even a common lamp-post in workers' colonies.

The flooring, roofing and walls were all *pucca* in the three-room tenements, but in one-room tenements they were mostly *kutcha.*

(*ii*) **Meerut**

The L. I. C. surveyed 5 units in Meerut district out of 6, all of which were seasonal factories. The total number of workers in the five units was 3,247 in 1944. The L. I. C. surveyed 708 dwellings of which 496 were provided by the employers and 212 were private houses. One-room dwellings predominated in both classes of housing. 74.6 per cent of employers' houses and 72.2 per cent of private houses were one-room dwellings, while two-room dwellings constituted 18.2 per cent of the total in the former class and 22.1 per cent in the latter class.

Out of the 496 employers' houses—370 were one-room dwellings, 90 two-room dwellings, 30 three-room dwellings, 5 four-room dwellings and one six-room dwelling. Out of 212 private houses, 153 were one-room dwellings, 47 two-room dwellings, 8 three-room dwellings, 2 four-room dwellings and 2 five-room dwellings. While the distribution of one and two-room dwellings in the employers' quarters and private houses was more or less equal, the density of occupancy in private houses shows definite signs of congestion compared to the density of occupancy in employers' houses. The 212 private houses comprised 289 rooms and the number of occupants in them was 1,216, which gives density equal to 4.2 persons per room of an average area of 153 sq. ft. On the other hand, the employers' houses comprised 666 rooms and accommodated 1,991 persons giving a density equal to 3 persons per room of an average area of 119 sq. ft. The average area in the employers' houses was 22 per cent less than the average area of the rooms in private dwellings, the density of occupancy was on the other hand, less by 29 per cent.

Subsidiary rooms and other amenities.—In regard to the provision of amenities employers' houses stood superior to private houses. While all houses provided by the employers had got verandahs, among the private houses only 22.6 per cent had verandahs. As for kitchens, 86 per cent of employers' houses had one against 10 per cent of private houses. Not one of the private houses had a bathroom, but 86.7 per cent of the factory houses enjoyed this amenity. And in respect of water supply, electricity, drains and ventilation, employers' houses stood much higher than private houses.

(*iii*) Gorakhpur

Out of a total of 13 sugar factories in Gorakhpur district, 9 employing 7,823 workers were surveyed by the L.I.C. The Committee surveyed 711 dwellings of which 276 were provided by employers and 435 were private houses. Of the employers' dwellings 90 per cent were one roomed 7.9 per cent were two roomed dwellings. The private houses were fairly well distributed in different groups.

The employers houses are of three kinds, *viz.*, family quarters, coolie quarters and quarters for semi-skilled workers. The family quarters meant for supervisory and other highly-paid technical staff consist of one room, one or two small verandahs, a separate kitchen, latrine, bath room and courtyard. The roofs are generally tiled or cemented. The coolie quarters consist of one small room and a verandah. They are made back to back, each side having a verandah which is, normally, partitioned to form a kitchen. The semi-skilled workers' quarters are generally brick made and the walls, floors and roofs are all *pucca.*

The private houses in the villages of Gorakhpur are generally of two kinds: one with courtyard, generally owned by the well-to-do cultivators and petty zamindars and the other without courtyards, the houses of the common men in the villages. The average size of the room in the employers' quarters is 107 square feet as against an average of 72.7 square feet in the case of private dwellings. The average per occupant comes to 30.5 and 22.7 square feet respectively.

In both categories of dwellings, the percentage of total occupants accommodated in small dwellings—particularly one-room dwellings in the case of employers' houses and one-and two-room dwellings in the case of private houses is larger than the percentage of rooms comprised in them.

In regard to the provision of general amenities, though both of them are generally poor, the employers' houses show better housing standards. While the employers' houses have verandahs, the private houses are comparatively better equipped with courtyards and kitchens. Bathrooms are conspicuous by their absence.

Latrines are provided in the employers' houses but not in the private ones. From the point of view of electric light, drainage and ventilation, the employers' houses are better than the private houses. The drainage in the villages is totally absent, while in the employers' houses there are drains normally at the back of houses but the flow is so slow that water stagnates and emits an offensive smell.

Water Supply and Light

Employers have provided taps in certain factories for the common use of workers, but the average works out to 25 to 30 families per tap.

The Provincial Sugar Tripartite Conference held at Lucknow in 1948, discussed the problems of housing, gradation of scales, etc., for sugar workers. The Minister for Labour, U. P. Government indicated the steps which the Government were taking. He said that a fund, known as the U. P. Sugar and Power Alcohol Industries Welfare and Development Fund, had been created out of the sale proceeds of molasses, which would be utilised in the construction of houses for workers in the sugar and allied industries and for the welfare and development of the industry. The Government had advertised for designs of suitable workers' quarters, which could be constructed with the minimum quantity of available building materials, like steel and cement. A number of designs had already been received and were being examined by a small expert committee.

His Excellency the Governor of U.P., Sir Homi Mody, in his address to the State Legislature on the 20th May, 1952, stated as follows :—

> "The Housing Scheme for sugar factory labour is making considerable progress and it is hoped that at least 500 houses will be ready for occupation before the next crushing season starts. The results would have been still better if necessary materials, which have to be imported from outside the State, had been available."

Upto August 1952, 368 houses had been completed and Rs. 1,70,432 had been paid to different sugar factories towards the cost of construction.

Bihar State

(iv) **Champaran**

Of the nine sugar factories in the Champaran district five employing 3,602 in 1944 were surveyed by the Labour Investigation Committee. A substantial percentage of workers is housed by the management in rent-free quarters.

The survey covered 651 dwellings, of which 156 were privately owned and 495 were supplied by employers. The great majority of the latter, 93.3 per cent, were one-room dwellings. Of the former, 45.6 per cent were one-room dwellings, 2.63 per cent have two living rooms and 16.7 per cent consisted of three rooms.

The average density of occupancy in private houses was 3.3 per room of an average area of 160 square feet as against 4.1 per room of an average area of 106 square feet in the employers' houses. But the density of occupancy in dwellings containing 1 to 4 rooms was greater in private houses than in employers' houses.

94.1 per cent of occupants in employers' houses were living in one-room dwellings. In private houses, the percentage of occupants in one-room dwellings was 34.3 ; in two-room dwellings 26.1 and in three-room dwellings 17.4. The remaining 22.2 per cent were living in dwellings containing 4 rooms or more.

In regard to amenities like verandahs, bathrooms, kitchens latrine, water supply, electricity, drainage, and ventilation, the employers' houses were much better than privately owned houses. The private houses were better in the provision of subsidiary rooms and courtyards only and also from the point of view of congestion.

(v) **Dharbhanga**

There are five sugar factories in Dharbhanga employing 4000 workers (1945) of which the L. I. C. surveyed 3 factories employing 256 workers. The three sampled factories housed 10,12 and 23 per cent of the workers. A very large percentage of them is housed in huts, which provide very poor shelter against sun and rain. The other kind of houses are generally single-room tenements built of bamboo walls, covered with mud plaster and thatched roofs. There are some *pucca* barracks to serve as family quarters, mostly for the permanent employees in the factories.

The L. I. C. surveyed 344 dwellings at Dharbhanga, 75 per cent of which were single-roomed. The average density was 4 per room of an average area of 137 sq. ft.

The percentage of occupants in one room dwellings was 73.6 against 58.5 per cent of the total number of rooms comprised in them. The percentage of occupants was smaller than the percentage of rooms in dwellings of larger size.

The amenities were at that time very inadequate. 5.7 per cent only of one room dwellings and 18.1 per cent of two room dwellings had subsidiary rooms. Only 25 per cent of two room dwellings had verandahs and courtyards. 91.1 per cent of one room dwellings and 70.1 per cent of two room dwellings were without kitchens. The living rooms were being used as kitchens as well.

Southern India

(*vi*) Vuyyur, Samalkot and Nellikuppum

The L. I. C. surveyed three centres in Southern India, *viz.*, Nellikuppum, Vuyyur and Samalkot. The total number of workers employed in the sampled factories was 804, 1025 and 1778 respectively in 1945. The number of dwellings visited was 280, of which 123 were located in Nellikuppum, 89 in Vuyyur and 68 in Samalkot.

The majority of the dwellings—221 or 75 per cent of the total were one roomed. Another 62 or 22.2 per cent of the total had two living rooms each.

The 230 dwellings comprised 359 rooms and accommodated 1,524 persons of both sexes and of all ages. The average density of occupancy in all dwellings was 412 persons per room of an average area of 113 square feet which gives an average area of 26.9 square feet per head. The density of occupancy was highest in one room dwellings and lowest in three room dwellings.

There were nearly 10 per cent more occupants in one room dwellings than the percentage of rooms in such dwellings. It follows that 68.1 per cent of all occupants (or 1,038 out of 1,524) were living 5 to a room of an average area of 113 square feet. Each person had an average of 22.6 square feet.

Every three in four dwellings had verandahs in them. Subsidiary rooms and courtyards were almost non-existent. Separate kitchens, however, existed in about 43.6 per cent of dwellings.

There is a conspicuous absence of bath rooms and electric light. The drainage is unsatisfactory. Separate water supply and latrines do not exist in a large majority of dwellings.

CHAPTER XXXVII

CEMENT INDUSTRY

In undivided India there were 20 units employing about 20,000 workers. Due to partition, Dandot, Attock (Wah), Sukkur and Karachi factories have gone to Pakistan. Thus in India there are 15-16 factories and the number of workers is about 16,000. Nearly 37 per cent of the total labour force is housed by the employers, and the housing provided by individual factories varies from 10 to 100 per cent. Except in the case of the Dalmia factories where the workers are given house rent and charged rent, housing is generally free. Cement factories have naturally one advantage in building quarters for their workers which is that cement is easily available for building purposes. Apart from this, however, it must be admitted that the housing schemes for cement workers are some of the best to be found in the country and the employers have shown a great deal of imagination in the construction of the quarters in order to ensure the comfort and convenience of their employees especially because the factories are situated in out of the way places. An outstanding example of excellent housing is provided by the factory at Surajpur in Pepsu. Here one finds an ordinary unskilled employee being provided with a quarter containing a couple of good living rooms, a courtyard and separate arrangements for water, sanitation, etc. Several of these factories wish to go in for further extension of building activity but are handicapped because of paucity of building materials, etc.

Below are given details of housing provided by individual factories :—

Associated Cement Companies Ltd., Kymore Madhya Pradesh

The company has provided quarters for a very substantial number of its workers and in all, there are about 700 quarters meant for the workers. In addition, quarters have been built also for the skilled and supervisory staff. The workers' quarters are built in lines containing several tenements. Each tenement consists of a room 10 ft. x 10 ft. and a verandah 10 ft. x 7 ft. They are all *pucca* structures with cement flooring. There are, however, no special arrangements for water, lighting or sanitation.

The company has also constructed 230 quarters for the coolies working in the quarries. These consist of single room tenements 14 ft. x 12 ft. These quarters are not as good as those built for the other employees. It is certainly one of the very good housing colonies so far as the prevailing housing standards in the country are concerned. Moreover, the company has an ambitious programme for building more up-to-date houses for the skilled and supervisory class of workers and has built some modern type quarters.

Cement factory of A. C. Cs. Ltd. at Madukkarai, Coimbatore District

Most of the employees of this factory come from surrounding villages and the factory has, therefore, built only about 150 houses. The conditions in these houses are not very satisfactory. The houses are rent-free. The factory has a large and ambitious programme for housing its workers and building more quarters.

Cement factory of A. C. Cs. Ltd. at Mangalagiri, Guntur District (Madras)

84 houses have been built providing accommodation to about 15 per cent of the workers. The company encourages the workers to build their own huts by supplying them with building materials. There are 12 such huts.

The company proposed to construct 300 quarters for unskilled staff and 40 quarters for skilled workers. The houses are provided with electric lights and water taps. The conservancy conditions are looked after by the company.

Cement Factory at Bezwada (Madras)

About 28 per cent of the workers have been provided with housing accommodation in six sheds. These are *kutcha* structures with walls and roofs of palmyra leaves. They are given rent-free. No latrines have been provided. The conditions in these structures are very unsatisfactory.

Dalmianagar (Bihar)

About forty per cent of the workers in the cement factory have been housed by the company in 65 quarters and the rent varies from Re. 1/- to Rs. 8/- p.m. There are three main types of quarters; family quarters, bachelors' quarters and cooly quarters.

The first type contains a room 13'×10', a verandah, a kitchen, a water tap, a bath room, a latrine and an enclosed courtyard. Electric light is supplied free of charge and the rent charged for the quarter is Rs. 4/- only per month. The bachelors' quarter contains one room 10'×10', a kitchen, a verandah, an enclosed courtyard and a latrine and the rent charged is Rs. 3 per month. In the cooly quarters there is a room 10 ft.×10 ft. a verandah and a kitchen, the rent charged being Re. 1/- per month. All the workers' houses are properly drained The family quarters are usually allotted to well paid workers like *mistries*, jobbers, etc. The majority of the operatives live in clear

II or class III types of quarters which are not so well ventilated as the class I quarters. There is a very great demand for workers' quarters. So far as land is concerned, the management are not experiencing any difficulty, but there is considerable difficulty about materials.

Workers who cannot be accommodated in the quarters provided by the company usually live in their own *kutcha* houses in the surrounding villages, while a few live in rented quarters in the town paying a rent of about Rs. 3/- per room of 10′×9′.

Japla Factory (Bihar)

About 50 per cent of the work people are housed by the factory. The rest of the workers come to the factory from their village homes, within a radius of about 5 miles from the factory. The accommodation is satisfactory. Light and water are provided free ; nor is any rent charged for the houses. Small gardens have been provided in front of the workers' quarters.

Lakheri (Rajasthan)

The town of Lakheri has sprung up as a result of the cement factory there. Naturally, therefore, the employers have built houses for their workers on an extensive scale. Nearly one thousand workers are housed by the company. These houses are of two types. One consists of a single room, a verandah and a kitchen while the second consists of two rooms, a bathroom with a tap, a latrine, a verandah, a kitchen and a store room. No rent is charged. The houses are very well ventilated and lighted and excellent sanitary arrangements have been made. Electric lights have been installed in all the workers' quarters, which are supplied free of charge. The company proposed to build more quarters for its workers and the minimum standard laid down is a two roomed quarter with all sanitary and other conveniences. Those not living in the company's quarters usually live in the surrounding villages in *kutcha* houses which compare very unfavourably with the housing provided by the employers. The workmen's quarters at Lakheri are some of the best to be seen in the country.

Cement Factory at Surajpur (PEPSU)

Nearly 60 per cent of the labour force is housed in the company's rent free quarters numbering about 275. The quarters are of two types: the first consisting of two rooms, a kitchen a bath room, a store rom, a flush latrine, and an enclosed coutryard and the second consisting of one room and a kitchen with free electric light. While in the former type there are separate arrangements for water and sanitation, such arrangements are common in the second type. The second type also includes 9 ' Hallman Huts ' at the quarry. These are made of hollow walls to keep cool during summer and are greatly appreciated by the workers. All the quarters are clean and well ventilated, with cement flooring and are some of the best to be found in the country. The workers who do not live in the company's quarters live in surrounding villages in their own *kutcha* huts which are completely lacking in sanitary arrangements.

The Associated Cement Companies Ltd.—Okha Cement Works, Dwarka

So far 50 skilled workmen have been provided with housing accommodation. Each quarter consists of two rooms and a closed verandah and they are fitted with electric supply for lighting and water supply. Another 75 quarters for unskilled labour and 20 for artisans have been built.

Cement factory at Bhadravati, Mysore State

About 50 per cent of workers have been provided with housing by the employers. Workers employed by contractors are also provided with houses. The rent charged is about Rs. 1-8-0 per month. The workers' quarters are provided with electric lights.

CHAPTER XXXVIII

GENERAL ENGINEERING

In the Engineering industry as many as 67 concerns have provided housing for their workers. This provision is common in ordnance industry, railway workshops and power station. No housing accommodation has been provided by any of the factories in building and motor repairing, kerosene tinning and packing, and metal stamping, mainly because of their urban location.

The workers employed in factories located in cities like Bombay, Kanpur and Madras, live in slums or in their own huts far away in the suburbs. Out of 48 factories investigated by the L. I. C. in the cities of Madras, Bombay, Ahmedabad, Calcutta and Howrah, Kanpur and Baroda only two factories in Howrah had provided housing for their workers. The provision of housing to workers is more common in mofussil industrial areas than in urban centres.

In one concern in Bombay 49 per cent of the workers are housed in rent-free single and double room tenements of bricks. In Hirapur concern of West Bengal 55 per cent of the workers are housed in rent-free *pucca* quarters (a room, enclosed courtyard, kitchen and verandah).

In Kulti concern of West Bengal 36 per cent workers are provided accommodation in *pucca* (brick built wall with terrace roof or C.I.) and *kutcha* (walls with straw thatching) houses. No rent is charged. In one concern in Howrah 10 per cent workers are housed in rent-free *pucca* and *kutcha* houses with corrugated iron roofs. In another concern in Howrah the employer has *kutcha* rooms for coolies and *darwans* only. The coolies pay rent at the rate of 8 annas per month—while the *darwans* are charged Re. 1/- per month. In Bhadravati 24 per cent workers are housed. The houses vary from cottage to bungalows and the rent charged ranges from Rs. 1-8 to Rs. 50 per month.

The Tata Iron and Steel Co. Ltd., Jamshedpur have provided roads, filtered and unfiltered water supply, sewage system, markets, schools, electricity, conservancy, play-grounds, parks and recreational facilities, etc. Both the Steel Company and the Associated Companies have their own schemes of housing their employees. The Steel Company, in addition, have provided planned *bustee* and residential areas, where employees of all the companies have erected their own private residences.

The Tata, Iron and Steel Co. have provided 11,900 houses at Jamshedpur for their employees. These are of different types varying from one room tenements to bungalow type houses. For one room tenements a rent of Rs. 1-8-0 to Rs. 3-8-0 per month is charged and for two room quarters Rs. 4 to Rs. 12-8-0. Rent for other types of quarters varies from Rs. 13 to Rs. 40. There are besides about 9,000 houses in the various *bustees* of which nearly half belong to the company employees. These houses are built on plots allotted on the basis of monthly tenancy. Another 350 houses have been built on plots leased to employees and others for 30 years.

In 1935, the company decided that the minimum accommodation to be provided to workers should be two living rooms, kitchen bath and latrine. There are also about 3,015 houses built by the employees under the company's Building Loan scheme. The company houses are all *pucca* with brick walls, roofs (in the case of many) of reinforced brick work and floor plastered with cement except a few one room quarters, where the floor is *kutcha*. All family quarters are provided with a bathroom with a minimum space of 4 ft. × 4 ft. and are brick walled. In one room tenements no separate bathrooms are provided, but open bathing platforms, adjoining water taps are put up. All quarters are provided with ventilators and electric light and/or fans. With the exception of one room quarters (which are provided with common latrines) all quarters are provided with flush latrines. Quarters have been built in lines parallel to roads in blocks of 2 units of the larger type, 4 units of medium type and 6 units of other types. Arrangements for supply of pipe water are satisfactory.

The Tinplate Company of India Golmuri have provided 919 quarters for their employees. Of these, 48 are sweepers' quarters and provide only a room, a verandah and a cooking place. No rent is charged. About 800 quarters have two rooms although the accommodation and the appurtenances such as courtyard, kitchen etc., vary in different types. The rent charged varies from Rs. 3-4-0 to Rs. 10 per month. The watch and ward staff are not charged any rent. The remaining quarters provide more accommodation and the rent charged varies from Rs. 15 to Rs. 20 per month. All except 68 quarters provided for menial staff have separate flush type latrines.

Electrical Engineering (including electrical generating and transforming stations)

In 1943, the engineering industry claimed 1929 factories employing 513,613 workers. Out of these, 78 factories with 13,083 workers belonged to electrical engineering and 121 factories with 9,605 workers were the electrical generating and transforming stations. The industry is mainly located in Madras, Bombay, Bengal, U. P., Punjab and Bihar. The 43 units, 22 electrical workshops with 7,319 (1944) workers and 21 power stations with 9,035 (1944) workers were investigated by the L. I. C.

The workers are provided with housing just near the factories by the management. Of the factories investigated, 15 factories (Madras, 1 ; Bombay, 5 ; Bengal, 7 ; Punjab 1 and Bihar 1), had provided housing accommodation for their workers. Out of the 15 factories, 11 (Bombay, 5 ; Bengal, 5 ; and Punjab 1) were power stations, while two of the remaining four (electrical workshops) were situated far away from urban areas. The details of housing provided by the 15 factories are given below:—

State 1	Concern 2	Proportion of workers housed. 3	Type of housing provided 4
		Per cent	
Madras	Electric Workshop.	100	Govt. quarters with electric light.
Bombay	Power Station	75	Permanent structure of stone and lime masonry.
	Do ..	60	(*i*) Walls of rubble masonry, cement mortar asbestos sheet or tiled roofing.
	Do ..	100	(*ii*) Flush lavatories, water taps with chlorinated water.
	Do ..	..	3 brick *chawls* of its sister-concern (cotton mill).
	Do ..	20	(*i*) Brick cement construction ; tube well water. (*ii*) Flush system with septic tanks and soak pitsl.
Bengal	Electric workshop	45	2 *pucca* and 2 *kutcha* houses.
	Do.	86	One *kutcha* house.
	Power Station	..	Only for shift men in power stations.
	Do ..	16	Single storey *pucca* building with kitchens.
	Do ..	75	100 *pucca* quarters each (12'×12')

Bengal	Power Station..	90	60 *pucca* single storey quarters (each 10' × 12') with tiled roofs.
	Do ..	90	Stone houses with iron or thatched roof, (some are of bamboo matting and some are of concrete) ; service type latrines.
Punjab ..	Do ..	50	69 single rooms and 2 three room quarters.
Bihar ..	Electric Workshop	21	130 quarters of different types and sizes—some having 2 rooms, kitchen and a verandah, others a single rooms and a verandah and a kitchen.

Note.—(*i*) Rents are not charged except in the first factory (Madras), where the rent is 10 per cent of the wages.

(*ii*) In one power station of Bengal, workers get either rent free quarters or house allowance at the rate of 12½ per cent of pay.

Water supply is satisfactory, except in a few power stations, which are situated in hilly tracts or in forests. Though sub-letting of houses is prohibited congestion seems to be inevitable due to shortage.

Unskilled labour employed on outdoor work in the generating stations of the Tatas in the western ghats live in neighbouring villages mostly in their huts. In Madras, workers live mostly in rented quarters in several parts of the city of Madras and sometimes in suburbs about five miles away from the city ; the rent paid by workers ranges from Rs. 3 to Rs. 10 per mensem, being nearer the upper than the lower limit in most cases due to congestion in the city. More than 50 per cent of the workers in the Bihar factory are aborigines, who prefer to live in *bustees* situated on the outskirts of the town or in villages.

Railway Workshops

The total number of employees (gazetted and non-gazetted, permanent and temporary) on all railways in the undivided India at the end of the year 1943 was 8,89,056, workshop labour constituting a little more than 17 per cent of the total. In 1943 there were 184 Railway Workshops employing 1,41,351 workers out of which 118 factories having 1,01,973 workers were State owned and 66 factories having 39,477 were company-owned factories.

Most of the railways have provided housing to workers, but more than 75 per cent workers employed in workshops do not enjoy the benefit of such accommodation. Railway quarters are usually occupied by the other staff. Several types of quarters have been provided by different Railways. The rent charged also varies from Rs. 4-8-0 for 'J' type quarters to Rs. 80 for 'G' type quarters. Some Railways charge 10 per cent of the employees' salary as rent. Details of various types of housing provided by the Kharagpur (West Bengal) Work-shop are given below:—

HOUSING PROVIDED BY KHARAGPUR WORKSHOP

Type of quarters	Size (Area of rooms per unit) (sq. ft.)		No. of units under occupation of Workshop staff	Monthly rent payable (Rs. per unit)
1	112	—	2,084	1 2 0
A	99	—		
AI	139			1 14 0
II	190	—		1 14 0
B	182	—	734	2 12 0
Bi	224	—		3 6 0
III	287		206	2 14 0
IV	372 (New type)		24	3 14 0
	436 (Old type)			4 6 0
9367C/1	385			5 11 0
V	717 (New type)		69	7 3 0
	767 (Old type)			7 1 0
VI	1,239		5	12 0 0
VII	376		57	3 12 0
VIII	508		9	5 1 0
IX	856		10	8 9 0
Staff Qrs.	345		42	2 5 0 (Elec.
Kutcha Qrs.	89		166	0 12 0 rent)

Sanitation is looked after by the Medical department of the Railway and water is generally supplied through taps.

Coach building and motor repairing

None of the factories has provided any housing accommodation to workers due to shortage of land in the urban area, where most of the factories are situated, and the unusual and sudden expansion in the number of employees. Workers make their own arrangements and live either in their own huts or in tenements provided by private landlords or public bodies. Owing to the present shortage of accommodation in the urban localities, congestion is inevitable and the conditions under which many workers live are extremely unsatisfactory.

Kerosene tinning and packing

The companies provide housing accommodation only to watchmen. Such accommodation generally consists of barrack quarters where two watchmen share a single room. These quarters are on the premises of the factories. The workers generally live in the city in *chawls* or in the suburbs.

Metal stamping

Housing accommodation for workers is not provided by any of the factories in Bombay and Poona. In Sholapur the factory management has permitted the workers to erect their own houses on land owned by the employees and twelve temporary sheds each 8 ft. × 12 ft. have been erected. Three to four workers live in each shed. A ground rent of 3 annas per month is charged for each shed.

Ordnance Depots and factories in the Ordnance establishments.

With the sudden expansion in employment during war time the problem of housing became acute. To meet this emergency, workers' colonies, generally under the management of the ordnance authorities, were set up. These were in Kirkee (Range Hills Estate), Dehu Road (Labour Camp) Jabalpur, Ishapore and other places.

In Kirkee one Ordnance factory has housed 4.6 per cent of its workers and in one depot 5 per cent of the workers have been provided with accommodation. In Dehu Road depots about 10 per cent of the workers have been housed. In Jabalpur one factory has housed 13 per cent and the other 62.76 per cent of their workers. In Ishapore one factory has provided 24 per cent and the other 20 per cent of their workers. In Kandivali works 20 per cent of the workers have been housed.

Range Hills Estate is a colony set up in 1942 by the ordnance authorities for the staff and workers of two factories and a depot in Kirkee. It is about three miles from Poona and about a mile and half from the Kirkee Ordnance factories. The quarters are of several types, of which ' RA ' and ' R ' are meant for the workers. Towards the end of 1944, 23RA type quarters and 1,322 R type quarters were allotted to workers. The quarters are brick-built and are barrack type. Latrines are common, while separate water taps are provided only for RA type quarters. For R type quarters, water taps are common, 2,000 gallons of water are supplied free of charge to every quarter per month ; the cost of this free supply of water comes to Rs. 1-4-0 a month. In April 1944, a census of the persons was taken and it was found that 23RA type quarters were occupied by 70 persons and 5,399 persons (1,771 males, 1,705 females and 1,923 children) lived in the 1,276 R Type quarters. In the R type, on an average 4.2 persons lived in a tenement. In some cases the proportion was very high.

The Labour camp organised by the Labour Officer of the two Dehu Road depots presents a different picture. The camp consists of 400 family rooms (20 blocks with 20 rooms each) and 10 'bachelor blocks'. Each of the family rooms has 10 ft. × 7 ft. area and the walls are made of '*chatai*'. The rooms are overcrowded ; some of them house two families while a number of workers sleep outside the rooms. Each room has a small verandah, where an oven is kept. In front of each room there is a small garden. These 400 rooms have only 4 water taps for drinking purposes. The ten bachelor blocks are medium size halls, intended mainly for sleeping though the workers cook their food also there. At present, the best features of the camp are a school, a sort of nursery or creche and a small dispensary with three beds—all run by the Welfare Committee of the two depots. Sanitation and arrangements for water supply are far from satisfactory. Latrines have walls of torn gunny bags. The walls of family rooms are built of combustible *chatais*.

The workers' colony of a Jabalpur factory where more than 8,000 workers reside, is about 2 furlongs from the factory and extends to a mile and a half. Common latrines and urinals on water-carriage system have been provided and they flush intermittently. Water is stored in a reservoir known as Pariot Tank. Water fetched through a canal, receives chemical treatment and the filtered water is supplied through G. I. pipes to all residential quarters. Workmen's quarters are served water from public stand pipes, where washing and bathing is allowed to a limited extent. One water tap with ½" or ¾" bibcock is provided at common stand post for each block of 6 'RA' or 12 'R' or 'S' quarters ; 4 communal flush latrines have been provided for each colony of 26 blocks. On an average five persons live in each quarter.

With the exception of workers in a Jabalpur factory, more than 75 per cent of workers in the ordnance concerns are not provided with any housing by the employers. Many of these workers come from the adjoining towns such as Poona, Jabalpur, Bombay and Baroda or from the villages nearby. The establishment of a number of depots in Dehu attracted a lot of labour from far-off States and because of the lack of housing provided by the employers, they erected *ad hoc* huts in the open areas near the railway station. In course of time it became an overcrowded and insanitary colony. After some time the military authorities took interest in the colony as most of the workers were their employees. The huts were arranged in regular lines ;

roads were chalked out and open drainage arrangements were made. The place was made a protected area by driving out undesirable characters, such as money lenders. Shops were allowed to be set up and a dispensary and a school were also established At present the colony accommodates nearly 7,000 labourers of all depots. These workers get the land free and they erect their own huts of '*chatai*'. Even now conditions are far from satisfactory. The dispensary with its limited hours does not cater adequately to the needs of the workers. Arrangements for the supply of water are unsatisfactory; drinking water for 7,000 people is available from only one well, which also is not kept in good condition.

Miscellaneous

Housing accommodation for workers is provided only by the Tata Aircraft, Poona, The Kirloskar Brothers and the Asbestos Cement Company. The Tata Aircraft, Poona, provides about 20 to 25 per cent of their workers with quarters. The accommodation provided consists of 30 rooms, each 24 ft. ×20 ft. and 12 rooms each 20 ft. × 12 ft. for the benefit of single persons. The bigger rooms accommodate four persons each and the smaller ones three persons each. In addition there are 122 rooms each measuring 12 ft. × 10 ft. for family people. Two bungalows in the city have also been rented by the company for housing workers. Furnished quarters are provided for the senior staff. 5 to 7½ per cent of pay is the rental charged which is much below the economic rents for these quarters. Four types of quarters are provided in the Kirloskar Brothers factory and are allotted according to pay and status. The workers are given single and double room tenements and the senior staff are allotted separate blocks. About 10 per cent of the workers are housed in the colony and 5 per cent of the investment cost is charged as rent. Nearly 50 per cent of the workers in the Asbestos Cement Company are housed in the company's *chawls*. The *chawls* are in blocks of 12 apartments each and each apartment consists of a room 10ft. × 8ft. and a verandah 10 ft. × 6 ft. The rent charged is Re. 1 per month from those getting less than Rs. 1-8-0 per day and Rs. 2 from those getting Rs. 1-8-0 or more. In the Indian Home Pipe Company, Jamshedpur, skilled workmen, who form about 15 per cent of the total, are supplied quarters rent-free. The quarters consist of a room and a kitchen with brick walls and tiled roof. Sanitary arrangements, etc., are satisfactory in all cases and there is no congestion as sub-letting is prohibited.

CHAPTER XXXIX

CHEMICAL INDUSTRY

The heavy demand created by the war and by the stoppage of foreign imports had to be met by establishment of new concerns. The total number of persons working in this industry is about 18,000 and the number of factories about 90. Most of the factories are in the States of West Bengal, Bombay and Madras ; the number of workers employed is about 7,000, 3,000 and 4,000 respectively.

Bombay

Very few employers provide housing accommodation for the workers. The Zandu Pharmaceutical Works, the only concern in the city of Bombay providing housing accommodation for its workers utilises its Bhojanshala (Boarding House) for this purpose. This building is a one-storeyed structure with five single rooms (12 ft. × 9 ft.) and two single rooms (18 ft. × 15 ft.) and accommodates 35 workers. The Dharamasi Morarji Chemical Company of Ambernath provides double room and single room tenements which are either *pucca* buildings or *pucca* in brick and cement with Mangalore tile or *kutcha* buildings with corrugated sheets on sides and asbestos sheets on top. The monthly rent of the double room tenements was Rs. 6 in 1944 and that of single room tenements was Rs. 2 to Rs. 2-8-0. The area of double room tenements is 360 ft. and that of single room tenements is about 170 sq. ft. In 1944 the company had 16 double room tenements and 50 single room tenements. The Pioneer Magnesia Works, Kharaghoda, have provided small mud huts in which most of their workers reside. The rest who are only seasonal workers are housed in open tin sheds. The structures are *kutcha*, brick-built with tiles or corrugated iron sheets on top. No rent is charged. The Bharat Vanaspati Products Pachora, with about a thousand workers, got well built and ventilated *pucca* houses with cement roofing on 50 per cent of the buildings ; the rest having corrugated sheets roofing. About 15 per cent of the workers stay in these houses which are rent-free. All quarters are furnished with water taps and free lighting.

Former Baroda State and Saurashtra

Only five factories have provided accommodation for their workers. Alembic Chemicals, Star Chemicals, Tata Chemicals, Mehta Oil Mill, Parkash Soap Laboratories provide housing in well arranged colonies with a number of social amenities. The quarters, however, are not rent-free and though subletting is prohibted, congestion prevails. Alembic Chemicals have housed 10 per cent of their workers in *kutcha* and *pucca* quarters, Star Chemical 50 per cent in single roomed dwellings, Tata Chemicals 80 per cent in *pucca* and semi-*pucca* rooms. The sanitary arrangements consist generally of basket type lavatories and open type washing places but in Mithapur waterborne latrines have been provided. Water is usually provided by means of water taps, except in one concern wherein boring wells are used.

Bangalore (Mysore State)

No houses are provided by the concern. Workers live in rented quarters in the city or in the neighbouring villages four to five miles away.

West Bengal

The percentage of workers housed by the factories themselves is extremely meagre.

The Bengal Chemical and Pharmaceutical Works have housed 16 per cent of their workers, Calcutta Chemicals 15 per cent, Waldie's Finc and Pigmant provide 5 per cent, Bangalore White Lead 5 per cent, D. Waldies Chemicals 15 per cent, Alkali and Chemical Corporation 80 per cent and Bengal Immunity 25 per cent.

The houses provided by factories however, are mostly of the barrack type, which are far from satisfactory from the point of view of ventilation and light. These lines or barracks consist of single roomunits with one door to each room and without any windows. Some of them are *pucca* while others have *pucca* floor, mud or split bamboo walls and corrugated sheet or tiled roof. Generally, no rent is charged for such rooms and the rooms therefore are mostly overcrowded. As separate arrangements have nowhere been made for kitchens, the rooms are used both as kitchens and bedrooms and are usually dark and full of soot and smoke. Housing provided by the Alkali and Chemical Corporation is the only brilliant exception in this respect. The rooms are more spacious with two doors and windows. There are also a few family quarters which are two roomed units with a courtyard and a latrine attached. But even here no separate kitchen arrangements have been made.

Some details of the percentage of the workers housed, the rent charged and the accommodation provided by a few of the important factories in different States are given below:—

Unit	Proportion of workers housed	Rental per month	Remarks.
	Per cent		
Bihar (Dabur-gram)	.. 30	10 per cent of wages	One room tenements (with kitchen)
Bombay I (Kharagodha)	100	Free	One room tenements.
Hyderabad I	33½	Free	One room tenements (with kitchen).
Saurashtra I (Mithapur)	70 to 75	12 annas to Rs. 2 and above varying according to type of quarters for unskilled and Rs. 2 to Rs. 12-8 for skilled workers.	The Mithapur town has semi-*pucca* blocks and cement concrete blocks each of 2 rooms with underground drainage system and water borne sanitation.
Madras I ..	45	Free.	
West Bengal I	62½	Free	
II	80	4 annas per head.	
III	16	Free (barracks), Rs. 12 to Rs. 45 (quarters).	
IV	20	Free (barracks), Rs. 3 to Rs. 25 (quarters).	

CHAPTER XL

IRON ORE INDUSTRY

The total employment in the iron ore industry in the whole of India is estimated at 16,000 on the average, of which Bihar alone accounts for nearly 10,000. At the three centres investigated by the Labour Investigation Committee, the employment was 9,211 in December 1944, whereas it was 9,530 during August 1939. During 1948 the total employment declined to 7,068.

Housing has been provided for workers at most of the mining centres. Contractors' labour also is housed in the company's quarters. Nearly 25 per cent of the workers are housed at Gorumahisani by the company and 90 per cent of the contractors' workers are accommodated in contractors' quarters. The Tata Iron and Steel Company have also required their contractors to build a sufficient number of quarters for their workers and the contractors have taken up housing schemes.

The total number of quarters at Noamundi is 458. 26 bachelor workers have been provided accommodation in the mess, while 100 workers come from their houses in the neighbouring villages. There are some bungalow attendants, who live in the out-houses. Altogether 22 workers have been accommodated out of a total of 1,271 workers who form the standing force of the company. The percentage thus comes to 49 for permanent workers. If, however, the temporary workers are included, the percentage will be very much lower, about 24 per cent only.

There are six types of houses in Noamundi and Gorumahisani besides the bungalows for Directors, Managers and Assistant Managers. The accommodation differs in various types of quarters ranging from 3 bed rooms, 3 small rooms, 2 verandahs in a senior type quarter to 1 room and both sides verandahs in an 'E' type quarter. The number of these quarters is 456 and 220 at Noamundi and Gorumahisani respectively.

The extent of congestion in these quarters is not much greater than in other industrial centres. In some of the rooms, workers live with families and the average number of occupants is about 5. However, in many single room tenements the congestion is greater and males and females who are not related or even acquainted with one another live together. In contractors' quarters, the state of congestion is worse and 5 to 10 workers often occupy small rooms of dimensions not greater than 6 ft. ×8 ft.

The superior staff are accommodated in *pucca* houses with reinforced concrete roofing and semi-*pucca* houses with corrugated sheet roofing covered with country tiles. According. to the type of quarters, floors are cemented, brick-paved or left *kutcha*. The rooms occupied by the workers measure 10 ft. × 10 ft. and are built in line. Some quarters have been provided with bathrooms and there is sufficient ventilation. Filtered water is also supplied through pipe lines to coolie huttings. The coolie huttings quadrangle at Noamundi has been lighted electrically all round and there is electric street lighting also. But in the coolie hutting themselves there is no electric light. For the better type of quarters, privies are built inside the quarters themselves ; but for coolies huttings latrines are provided separately for males and females in the vicinity of quarters. Roughly, there is one latrine for ten workers. On the whole, quarters supplied by companies to workers at all mines are neat and clean, and sanitary arrangements, especially at Noamundi and Gorumahisani are satisfactory. Workers' quarters are situated near the mining faces and no transport is necessary. Market and post office facilities are also available nearby. Allotment is made according to pay and seniority. No sub-letting is allowed and eviction is only by legal process. There are no facilities for workers to build their houses, even at their cost. Workers are not, it seems, encouraged to build houses on a long lease. Generally the employers possess surface rights under the mining leases. Wherever necessary, they have also availed themselves of the Land Acquisition Act for housing purposes.

Contractors' labourers at Noamundi and Gorumahisani live partly in contractors' houses. The houses owned by contractors at Gorumahisani are tolerably good, being neat, clean and sanitary with adequate number of privies and water taps. But at Noamundi, the contractors' quarters are hopelessly bad. Almost all the rooms are in a dilapidated condition and sanitary arrangements leave much to be desired. The Manager of the Noamundi contractors hopes to build new quarters as approved by the company in the near future. Sanitary arrangements at Gua also are unsatisfactory. At Gorumahisani some 40 workers live in houses let out by private landlords. These are *kutcha* houses and not so good as the company houses. Non-resident workers, coming from six or seven miles daily live in their own huts in the villages. These are generally thatched cottages. Nearly 53 per cent of workers thus live in the villages at Gorumahisani and about 10 per cent at Noamundi.

The Tata Iron and Steel Company Ltd. have been undertaking big schemes of housing for their workers but owing to difficulties in getting materials, construction has been restricted at the moment.

CHAPTER XLI

THE MICA MINING AND MICA MANUFACTURING INDUSTRY

The average daily employment in the mica mines under the scope of the Indian Mines Act was 31,490. The industry is localised in Bihar, Madras and Rajasthan.

Bihar

Housing accommodation is provided only to a small percentage of workers who live at the mines. The accommodation provided at several of the mica mines consists of straw huts or sheds constructed with twigs and dry leaves. The usual type of house in Bihar is built entirely of bamboo and grass. The dimensions are 30 ft. × 8 ft. × 5½ ft. The walls are built of bamboo and the roofing is of green leaves. It looks like a tent of leaves held in position by a strong bamboo or wooden pillar. There is hardly any necessity for doors and windows as it was airy from every side. No rent is charged for the accommodation provided. There is a very small number of better type of houses for *darwans*, *Khalasis* or carpenters. They are single room tenements built in lines and are rent-free. Their walls are either built of brushwood or of *kutcha* bricks, and roofs are built, ventilation is very poor. No latrine or urinal accommodation is provided even for those who live in these quarters with the result that they go out into the open. This causes them to develop disease like ankylo-stomiasis and anaemia.

The manufacturing concerns in Bihar have not provided housing accommodation to their employees and as such a large number of workers—men, women and children have to come from four to six miles. In Kodarma and Giridih—the two main centres of the industry—workers stay in hired lodgings, paying one or two rupees per month as rent. Over-crowding and bad sanitation are common featurs of theworkers' private quarters. Arrangements for drinking water leave much to be desired.

Madras

The mica mining industry in Madras provides housing accommodation for about 10 to 25 per cent of the workers who live at the mines. The accommodation consists of round thatched huts of a conical shape erected by the employers with the help of the labourers themselves. The floor area is very small, about 54 square feet only. Of the rest of the workers, about 20 per cent are agriculturists with small lands of their own, or cultivating tenants. They live in their own houses which are slightly better, mud-walled huts with thatched roofs, with a room and a separate kitchen and a floor area of about 200 sq. ft. The remaining workers live in smaller huts of about 100 square feet with only one room. Contract labour which comes for temporary work often lives in the open, sleeping under the trees. Congestion in the few huts provided by the owners is very acute. No adequate arrangements are made for water and sanitation.

The mica manufacturing industry in Madras has not provided any house for its worker. All workers live in private houses, mostly owned by themselves and rented in a few cases. The houses have thatched roofs and walls and earthen floor. There are usually two rooms, one living room and a kitchen, the total floor area being about 150 square feet. A few of the workers have better houses with tiled roofs, brick walls and two or three rooms, the floor area being about 300 square feet. A small proportion of workers live in rented houses, paying a rent of Re. 1/- to Rs. 3/- per month.

Rajasthan

Accommodation is provided only to workers recruited from outlying areas but they constitute less than 10 per cent of the total employment in the mines and open workings. The vast majority stay in the villages nearby. *Pardeshi* labour is housed in mud huts with thatched roofs and often the mine owner rents a few *kutcha* houses in the adjoining villages for accommodating the *pardeshi* labour. In a room 10 ft. × 10 ft. four workers are generally lodged. No latrine accommodation is provided. In the case of mechanised mines, one room is provided to every technical employee. No rent is charged.

Mica manufacturing—All workers brought from Kodarma and Giridih are provided with housing accommodation. No special quarters have been built for them but *kutcha* houses owned by the proprietors of the factories or other persons in the vicinity are allotted to them. In a small house, with four rooms, 10 or 12 workers are accommodated and generally there is no overcrowding. In a room 10 feet × 8 feet or 10 feet × 10 feet two or at the most three persons would be staying. Latrine and urinals are provided. No rent is charged for the accommodation provided.

The need of providing housing accommodation to mica factory labour is a long felt one. The Mica Enquiry Committee appointed by the Government of India in 1944-45 was of the opinion that on the mining side provision of good housing accommodation with other necessary amenities, such as drinking water, facilities for marketing, good communication etc., would go a long way in the building up of a permanent labour force. The Committee considered that provision of this kind could not be expected to be made by individual miners

—and it must come out of the general welfare fund. Persons who are in a position to understand the needs of labouring class should be associated with the designing of construction of the houses.

The Coal Mines Labour Welfare Fund has a scheme for the construction of houses for workers in the coalfields on payment of a subsidy to the colliery owners equal to 25 per cent of the cost of construction or Rs. 750 per house, whichever is less, the subsidy being payable only if the houses constructed are in accordance with the plans and specifications prescribed by the Fund. A similar scheme for the construction of houses in the mica fields has been circulated to the mica mine owners of Bihar, the ceiling limit of subsidy being Rs. 600 for a permanent type of house for mines which are expected to last 20—25 years and Rs. 470 for houses which will be suitable for mines whose life is uncertain. Replies from the mine owners are still awaited.

The mica mine owners of Madras were also contacted with a view to introducing a similar subsidy scheme for the construction of houses in that area. The preliminary response was satisfactory and plans and specifications suitable to that area are now being prepared by the Government of India.

CHAPTER XLII

GOLD MINING

Kolar Gold Fields, Mysore

The number of persons employed in the industry was 21,669 in 1949.

No housing has been provided by the Mysore Government on the Kolar gold field for the workers but the companies themselves have housed about 80 per cent of the labour force in 14,848 huts. Of these, 10,404 were of bamboo *tatties*, 1,358 in reinforced concrete, 586 in masonry and 2,500 prefabricated type. The workers' huts which are constructed in lines are either single or double roomed. The former consists of a room and a kitchen with a front open verandah. The single hut is about 18 ft. × 9 ft. and the double hut 24 ft. × 9 ft. The average number of persons per hut is about 5.25. The rent charged for a single hut is annas eight and for a double hut Re. 1 to Rs. 1-4 per month. For the double huts separate bath rooms are provided. The huts are ventilated by windows and there is intervening air space between them.

The companies have been working to a five year programme of building 700 to 800 houses of improved type per year ; but unfortunately want of building materials and adequate finance have impeded the progress.

The workers' colonies are practically self-contained with line shops, *dhobi khanas*, common water taps, adequate number of latrines separately for males and females, temples, schools, street electric lighting, maternity homes, recreation clubs and cattlesheds.

Avenues of trees lend picturesqueness and shade to the colonies. Houses made attractive by gardens are not uncommon in workers' lines.

There are certain conditions attached to the allotment of houses to employees of companies on the Kolar gold field. These are called "Housing Orders". Except in the case of the west coast men for whom group accommodation is given, bachelors are not allotted any houses. The allotment of housing is conditional on satisfactory attendance and good service record but when there is more than one applicant for a house, allotment is generally made by raffle from among those applicants suitably qualified. These housing orders not merely regulate conditions for the allotment of houses but in an indirect manner ensure the health of the mining community. For instance, anybody accepting a house must follow the instructions given by the Chief Medical Officer or his staff as regards vaccination, inoculation, sickness, sanitation,etc. Moreover, all cases of births, deaths, sickness, etc., have to be reported immediately to the sanitary authorities. The occupants of the houses are required to observe the judgments of the Panchàyats that have been set up to preserve peace and tranquility in the lines, if such judgments are endorsed by the Superintendents of the companies.

The housing provided by the employers being in the mining area itself, the distance from the quarters to the place of work does not exceed a mile in any case. There is a Post Office and a market within easy distances of the workmen's quarters. Workers who are unable to live in the companies' colonies generally live in small huts outside the mining areas and are required to pay a rent varying from Rs. 2 to Rs. 5 per month. The conditions in these huts are extremely unsatisfactory. The gold mines have a programme of building a number of precast concrete type houses every year. The lack of building materials has, it is said, impeded progress in this direction. Nevertheless since the time of Mr. Deshpande's enquiry, about 400 new houses have been built and some of *tattie*-walled houses have been replaced by concrete structures. The annual expenditure on the upkeep of houses and maintenace of sanitation is over Rs. 8,00,000.

CHAPTER XLIII

MANGANESE ORE INDUSTRY

Manganese mining is one of the major mineral industries in India. The industry is concentrated in Bihar, Bombay, Madhya Pradesh and Orissa.

Madhya Pradesh

The C. P. Manganese Ore Company owns the bulk of the manganese mines, namely Gumgaon & Ramdongri, Kandri, Mansar, Lohdongri, Satuk, Beldongri, Chikla, Dongri Buzurg, South Tirodi Jamrapani, Tirodi E. & W. Paonia, N. Tirodi, Ramrama E. & W. Dharweli and Ukwa. On an average 90 per cent of the labour has been provided with housing.

The site where quarters are built is known as Camp. Different types of quarters are provided in different mines as each manager has designed quarters in the light of experience gained and materials available. In one mine ;barracks of 4,10,15 and even 20 rooms are built according to the availability of land. Each room is usually 10 feet × 10 feet with a verandah of 10 feet × 6 feet. The verandah is generally enclosed and is used for cooking. In some mines a plinth of 9 inches to 1 foot is provided while there is no plinth in other mines. The floors are of rammed murram and the walls generally made of bricks. Windows are usually 2½ ft. × 2½ ft. Mangalore and country tiles and in a few quarters asbestos sheets are proivded as roofing. No lighting is provided.

An improved type of quarters was built in 1943 in Kandri mines which provided one living room 11 ft. ×11 ft. and a kitchen 11 ft. × 8 ft. with no chimney. They have no verandah but a passage is built between the two rooms. The floor is of cement. In the case of mines which have old housing, there is a large number of quarters which is back to back. In Mansar mine, there are 17 blocks with 68 such quarters. They have no windows and ventilation is secured by square holes in the wall. There is no verandah also and corrugated iron sheets are used for roofing. In this mine, even the 108 converted quarters (in 27 blocks) which have a high roof, one big window and a varandah, are still back to back. The recently built houses are not back to back but have no kitchen. There are 297 temporary back to back quarters for seasonal labour in the same mine. They have no windows nor have they any verandahs.

Latrines and urinals are not provided in the camps for labour.

Adequate gangs of sweepers are maintained to keep the camps in a sanitary condition. Drinking water is obtained from *pucca* wells which are properly protected and regularly disinfected. There are no bath rooms in the quarters for labour. Efforts are made to accommodate similar tribes and castes in one area in a camp. In some cases overcrowding is prevalent as two quarters are very rarely given to large families. Housing provided by some other concerns is very poor. Houses are *kutcha* and the walls are made of grass or bamboo matting. Ventilation and sanitary arrangements are almost absent.

Bombay

The Shivrajpur Syndicate in Bombay has provided two types of houses. The artisan type has 81 quarters in 9 blocks. It consists of four rooms, the sizes being 12 ft. × 12 ft., 12 ft. × 9 ft., 12 ft. × 6 ft. and 7 ft. × 6 ft. Most of these quarters are given to workers in the workshop. They have no electric lights. There are 210 quarters of other type which are given to imported labourers.

All these quarters are rent-free and are built in stone masonry and have corrugated iron roofs. Drainage system is bad as there are open gutters and soak pits. The company has built new type of houses to accommodate 50 workers. They are in 5 blocks. Each quarter is 12 ft. × 12 ft. and has a kitchen of 8 ft. × 6 ft. There are two verandahs, one in front and the other at back with dimensions of 12 ft. × 6 ft. and 4 ft. × 6 ft. respectively. There are seven wells fitted with electric lift pump and water is distributed by means of pipes and taps. The supply is plenty and wholesome. There are 12 sets of *pucca* latrines. There are sweepers and one *mukadam* to look after the sanitation of the camp.

Sandur State

In Sandur State all imported and local workers are provided with rent-free quarters. Quarters in one mine are of two types. One is a semi-cylindrical hut 10 ft.×8 ft. with no windows and the height of the roof is 6 feet. The other type is a hut consisting of two rooms, one 8 ft. × 10 ft. to serve as a kitchen. There is no plinth. On an average, four workers and their dependents live in each hut. In another mine the quarters consist of back to back lines with 7 to 9 rooms on each side. The walls are of mud and the roof of corrugated iron sheet. The rooms are 10 feet square. No windows are provided and the entrance to each room is by a narrow door leading from a verandah 3 feet wide. The plinth is 6 inches—and floor is earthen. Water in both the places is pumped from a spring to a reservoir and led to the camps through pipes and taps.

CHAPTER XLIV

PAPER MILL INDUSTRY

The paper mill industry in India employs about 22,000 workers out of whom 9,000 are employed in the four units in West Bengal alone. The mills in the States of Hyderabad, Mysore, Travancore-Cochin and Indore in Madhya Bharat employ about 4,000 workers. The rest of the industry is located in U. P., Bombay, Bihar, Orissa, Madras and the Punjab.

West Bengal

In Calcutta two units provide housing to about 25 per cent of their workers. The quarters are of the barrack type or the semi-detached family type. Sometimes the barracks are one-storeyed buildings. One unit has supplied 166 living rooms including the family quarters. The rooms are generally single, measuring 12 ft. × 12 ft. or 14 ft. × 16 ft. Four to six workers are living in a single room tenement. The rent for each room is about Re. 1 per month while that of a family quarter consisting of one room is only Rs. 2 per month. There are no individual arrangement for water and sanitation. Another unit in Calcutta has no provision for family quarters but has only built barracks. About three workers live in each room. The rent charged varies from As. 4 to As. 12 per month. The barracks are, on the whole, well-lighted and ventilated. The Titaghur Paper Mills Company have housed about 10 per cent of their workers free of rent. The Mill at Naihati provides free quarters to about 450 workers. At Raniganj, there are 219 quarters which accommodate 26 per cent of the workers besides a large barrack for the ward staff. No rent is charged for any of these quarters.

Bihar (Dalmianagar)

The mill at Dalmianagar provides housing accommodation to about 600 workers out of a total of 1500 employed. There are three types of quarters, family quarters, bachelors quarters and cooly quarters. The first type contains a room, 13 ft. × 10 ft. a verandah, a kitchen, a water tap, a bath room a latrine and an enclosed courtyard. Electric light is supplied free of charge and the rent for the quarter is Rs. 4 per month only.

A bachelor's quarter contains one room 10 ft. × 40 ft., a kitchen, a verandah, an enclosed courtyard and a latrine and the rent charged is Rs. 2-8-0 per month. In the cooly quarters there is a room 10 ft. × 10 ft., a verandah and a kitchen the rent charged being Re. 1/-

per month only. All the workers' houses are properly drained. The family quarters are usually allotted to well-paid workers like *mistries*, jobbers, etc. The majority of the operatives live in class II or class III type of quarters which are not so well ventilated as the class I quarters.

Workers who cannot be accommodated in the quarters provided by the company usually live in their own *kutcha* houses in the surrounding villages while a few live in rented quarters in the town paying a rent of about Rs. 3 per room.

Bombay, Poona and Ahmedabad

About 8 per cent of the workers employed in the Poona mill are provided with free housing. They are single room tenements, 18′ × 20′ in size. Ventilation is good but sanitation is poor. The housing colonies are situated in two different places, one near the factory and the other a few furlongs away. The other three mills in the State have no housing schemes.

About 10 per cent of the workers in the Gujerat Paper Mills are housed by the company. The rent charged is Rs. 4 per month. They are all single room tenements measuring 12 ft. × 22 ft. The rooms are partitioned into a living room, a kitchen and a bath. There is also a verandah 6 ft. wide. These quarters are well ventilated and the sanitary arrangements are good.

Orissa

The mill at Brajrajnagar has provided 352 family quarters and 108 bachelors' quarters while another 10 per cent of the workers have been housed in temporary quarters. 85 per cent of the workers have been provided with housing. Each family quarter contains one room 12 ft. × 10 ft. and a spacious courtyard. The supply of water is generally obtained through wells. In the bachelors' quarters about 350 workers are accommodated. Each of these quarters has a room 12 ft. × 9 ft. and a verandah. In these quarters also the arrangements for the provision of water and sanitation are not too satisfactory. Both these types of quarters are *pucca*. These quarters are of an improved design and are furnished with electricity, water pipes and latrines.

Punjab—Jagadhri

The mill at Jagadhri has housed 75 per cent of the workers free of rent. The quarters consist mostly of one room tenements 10′ × 9′ with verandah and an enclosed courtyard. There are common sanitary arrangements for these quarters. The company supplies electricity free of charge in the workmen's dwellings. All the houses are well ventilated. Many more quarters are now reported to be under construction in spite of the difficulties of the availability of building material. Such of the workers as do not live in the company's houses live in their own *kutcha* dwellings in the adjoining villages.

Mysore—Bhadravati

The percentage of workers housed by the Mysore Paper Mills was 40 in 1944; now it has risen to 50 per cent. Due to a fire in 1945, most of the huts erected by the workers were burnt and the workers were homeless. The management has thereafter constructed about 160 well ventilated huts and have provided accommodation to the workers at nominal rents from Rs. 1-12-0 to Rs. 2-4-0 per unit.

Uttar Pradesh

There are four paper mills in the State—2 at Saharanpur, one at Lucknow and one in Meerut—employing about 2,000 workers. According to L. I. C. report one mill at Saharanpur had provided houses to about 70 per cent of its workers. Most of the houses were single-room tenements and were provided free of rent.

CHAPTER XLV

GLASS INDUSTRY

There are about 150 factories in India, about 80 per cent of them being in U. P. and the rest in West Bengal and Bombay. The total number of workers employed in the industry is about 18,000.

Uttar Pradesh

In the U. P. Glass Works, Ltd. Bahjoi out of a total strength of about 600 workers only 84 workers and their families have been housed in the factory quarters. The rentals charged vary from two annas to eight annas per mensem and for the quarters which are allotted to the members of the superior staff, they vary from Rs. 1-8 to Rs. 2. Some of them live in workers' quarters also. Generally the rentals are charged at the rate of 4 annas for each room. The cheapest quarter, *i.e.*, the 4 anna type has one room 10 ft. × 10 ft. × 12 ft. and a courtyard 6 ft. × 10 ft. The quarters are *pucca* with brick laid roofs and flooring. In the better quarters, latrines and water taps are provided. There is no congestion in the superior quarters, but 4 annas and 8 annas quarters house on an average a family consisting of 4 to 5 persons. There is no subletting in any of the quarters. Sanitation is poor and water supply meagre or practically non-existent in the cheaper quarters. There is only one water tap for 15 or 20 quarters of one particular type. The condition of sanitation and water supply is slightly better in the quarters charged at 8 annas or above per month. They have a separate latrine and hand pump each attached to them and are also neater and cleaner.

In the Ganga Glass Works Ltd. at Balawali, housing facilities have been provided to 250 workers—about one third of the total labour force. Here no rents are charged by the employers for the housing accommodation provided. Generally the quarters have a room 10' × 12' with a verandah and courtyard. There are several types of quarters. These are the common Indian types of houses. There is no congestion. Most of the workers live in single room tenements without their families. No subletting is permissible. As regards sanitation and water supply, water taps and open latrines have been provided. About 2-3rds of the workers who are recruited from the surrounding villages maintain their contact with the fields and go back to their own houses after their days' work in the factory.

As regards the Ferozabad centre, in one factory there are two rooms 10′ × 4½′ × 6′ and 12′ × 8′ (× 10′) and open place 15′ × 6′

where the employers house their workers. Thus, in one big hall 10 to 12 men are supposed to live.

Another factory has 4 rooms (10′ × 8′ × 8′) and 4 rooms (8′ × 6′ × 8′) meant to house 8 workers. The rooms are rather congested and it is dark even during the day. A third factory has 6 rooms (10′ × 8′ × 10′) for which rental is charged at Rs. 2 per room per month. The *bhishti* and the firemen are exempted from payment of rentals. In these 6 rooms, 9 workers are living—3 each in 2 rooms, and 1 each in the other 3 rooms. A fourth factory has 3 quarters (8′ × 10′ × 10′) rented by the employer on Rs. 6 per month and supplied free of charge to workers. There are two windows, brick laid floor, one verandah (7′ × 18′ × 10′) and a separate courtyard in each of these. Another factory provides accommodation to firemen and helpers. There are 10 rooms (12′ × 10′ × 8′) with *pucca* floor in some rooms and *kutcha* in others and a well within the premises. There is good arrangement for washing and bathing. No rents are charged. The employers supply wood, fuel, and light free of cost. Generally speaking from two to three men live in a quarter on an average. Thus in 10 quarters about 25 to 30 labourers are housed.

The Jain Glass Works at Harangau has provided 22 quarters to their employees. These quarters have one room (10′ × 10′ × 10′) a courtyard a small walled enclosure 3 ft. square to serve the purpose of a urinal or latrine. They are all single room tenements Each worker has 2 or 3 rooms at his disposal. Workers recruited from the villages nearby prefer to go back to their homes.

West Bengal

The total number of workers employed in the 17 factories surveyed by the L. I. C. in 1944 was 4,628 of which 762 or about 17 per cent were housed in employers' free quarters. These 11 factories with a full strength of 3,066 have accommodated 762 or in other words, about 25 per cent of their own workers, free of rent. The usual types of houses are: (1) *Kutcha*, *bustee* type houses accommodating 36 per cent of the total number of workers actually housed, and (2) *Pucca* generally barrack type buildings accommodating approximately 64 per cent. One employer, namely the Glass Producers have rented two storeyed barracks type *pucca* and a few huts in the *bustees* for their workers. The workers are accommodated on the top floor of the two-storeyed building, the ground floor being occupied by shops. The rooms accommodating the workers are very spacious—14 ft. × 10 ft.—and with a number of windows. The houses in the "bustees" rented by the firms are better ventilated than the usual ones and are in a better condition of upkeep also. In one factory alone an attempt has been made to provide family quarters with separate arrangements for kitchen (Bharat Glass Works). These family quarters have been allotted to the blowers. The second type of accommodation afforded is the same as the first with the exception that the units have slightly smaller rooms and have been allotted to workers to be used as messes. The third type of accommodation in this company is *kutcha* shed consisting of two rooms—30 ft. × 20 ft.—accommodating 25 workers per room. These have been allotted to coolies generally.

Punjab

There are four glass factories at Amritsar and one at Ambala. Since workers are mostly brought from the U. P. or West Bengal, they have to be provided with accommodation. Even where no houses are owned by the firm small buildings are rented for workers. Local workers are not provided accommodation by any concern. Technical staff is given preference. In one factory alone a compensatory house allowance (Rs. 2 P. M.) is paid to those workers who are not provided with housing accommodation. The present housing arrangements are only meant as a temptation to workers in order that they may not leave the concern. The total number of workers in these factories is about 600 and out of these about 40 per cent are provided accommodation. All this housing is provided free of rent. The less said about these houses the better. Invariably single room tenements (8′ × 10′) are provided. Flooring is generally of mud, and the roofs in one case were found to be made of inflamable thatch. Latrines are usually built at some distance from these tenements but in one factory, which is situated in the town proper, no latrines were provided and workers were expected to go to the open fields. For the superior technical workers quarters with one room, a verandah and a kitchen were provided but it s interesting that no latrines had been built in the houses and the occupants were expected to use common latrines. Flooring in these houses was *pucca.* In a single room 8 ft. × 10 ft. from 3 to 4 workers lived and cooked food within the room. The result can be imagined. Rooms presented a congested and dirty appearance. Sub-letting is not reported anywhere. Sanitation is very bad and a dead drain full of mud and dirty water in front of the rooms was not an uncommon sight. It is no wonder that malaria is the most prevalent disease. Besides there are no bath rooms anywere.

Bombay

Five out of the seven concerns have provided housing accommodation for some of their workers. One factory has housed 750 out of 1250, second 300 out of 1410, third 150 out of 430, fourth 30 out of 310. The houses are of different types.

The conditions regarding congestion, sanitation and water supply are unsatisfactory. Sub-letting, though usually prohibited, cannot be avoided especially in the urban areas, where the problem of accommodation has become very acute in war time. Majority of workers somehow manage to live in ordinary temporary structures. Naturally, the conditions as regards ventilation, light, etc., are poor and even irritating and disgusting. Most of the workers in Bombay live in slums, which to the City's disgrace still exist in areas like Mazgaon, Parel and Mahim.

Madras

About 1000 workers are employed in the factory. The management has taken a house on rent at Rs. 40 per month and has provided in it residential facilities for the skilled staff recruited from outside. No rent is collected from these workers. The management attach great value to the provision of residential facilities for outside labour. The construction for residential quarters for these workers though contemplated could not be carried out because of lack of cement. Most of the unskilled workers men and women come from the neighbourhood and there are large groups of workers sheds in the vicinity. Some of these are owned and have been constructed by the workers themselves on land leased at a nominal rent. These sheds are small in size, built of mud-walls with thatched roofing mostly in coconut grove. These workers' colonies are decidedly more healthy than the city slums.

Bangalore

The Bangalore Factory (Mysore Glass and Enamel Works) was constructed in 1938 and began functioning in 1939. Planned and constructed on up-to-date lines it is located in the outskirts of Bangalore City easily accessible by road and within half a mile of the railway station of Yeshwantpur on the Mysore Railways. The number of workers employed is about 400—500.

Residential quarters are provided for the essential services in the concern for nearly sixty families. As these people have to be available all the time near the works and as they are also outsiders, provision of housing is considered absolutely necessary. The houses provided are of three types mainly:

A Type—Four rooms with a total area of 780 sq. ft. provided with electric lights and water. Rent Rs. 3-8-0 p. m.
B Type—Two rooms with a total area of 300 sq. ft. with lights. Rent Rs. 1-12-0 p. m.
C Type—One room with an area of 200 sq. ft. with a verandah with lights. Rent Rs. 1-4-0 per mensem.

The rents charged are nominal. The company contemplates the extension of the housing scheme, so as to accommodate at least 50 per cent of its workers. The present housing scheme has cost them Rs. 46,000. The other workers, most of them local, drawn from the city or neighbouring villages two or three miles off, live in rented houses or in their own houses.

CHAPTER XLVI

WOOLLEN TEXTILES

(i) Kanpur

There are two woollen mills at Kanpur employing about 4,500 worker. The Kanpur Woollen Mill has a special settlement for its workers known as MacRobertgunj. It contains 43 blocks of houses with about 850 quarters. Apart from the quarters built for the supervisory staff, the workers' quarters contain either one or two rooms with an attached verandah. The double room tenements consist of two rooms each 10 ft. × 12 ft., a verandah 21 ft. × 6 ft. and a courtyard 12 ft. × 11 ft. The rent charged for a single quarter is Rs. 1-4-0 per month, while for the double quarter it is Rs. 4-8-0 per month. About 1,200 employees of the company or over 25 per cent of the total are housed in these quarters. This is one of the good settlements in Kanpur and the mill authorities see that the surroundings are kept clean and in a sanitary condition. Certain special amenities are also provided in the settlement for the welfare of the operatives and their families such as dispensary, schools etc. The other mill has not provided any housing for its employees.

(ii) Dhariwal

The total number of workers is about 2,800. The company provides housing for a large number of its employees. About 780 quarters are set apart for the workers. All these, with the exception of 26 which are double—roomed, are one—room tenements with an enclosed courtyard, a verandah and a kitchen. Only a few have latrines and it is understood that even where latrines exist, the workers prefer not to use them. Electric lights have been supplied in some of these quarters and a nominal rate of 1 anna 3 pies per unit is charged. There are no separate water arrangements but hand pumps are provided in front of the quarters at convenient distances. On the whole, there is not much congestion or overcrowding in these quarters, and sanitation appears to be fairly satisfactory. About 1,000 employees are staying in these quarters and it would appear that there is not much demand for houses as the rest of them like to live in their own ancient and *kutcha* houses in the surrounding villages. No rent is charged, but charges known as 'repair' and 'whitewash' charges are levied according to the income of the tenant. These charges come to Re. 1 to Rs. 2 per month.

(iii) Amritsar

The number of persons employed in 6 units is about 1,300.

It was noticed that among the factories surveyed by L. I. C.

only 28 per cent of the employees were provided with housing by the employers. In one of the factories about 65 per cent of the workers were provided with housing, a married man being given two rooms and a courtyard and a singleman, one room and a court-yard. One of the factories employing a fairly large number of men informed that they were unable to build quarters as land was not easily available except at fancy prices and secondly the price of the building material had gone up.

Industrial housing became an extremely acute problem in Amritsar, where workers were required to live in private tenements. The result was that there was tremendous amount of subletting and congestion. Since the Partition the problem has eased a bit as Amritsar is border town and the congestion has decreased.

(*iv*) **Bombay**

The number of persons employed by the four units is 5,100. Only one of the mills has provided housing for about 4 per cent of its operatives. The housing is of the *chawl* type, with single room tenements.

(*v*) **Mysore State—Bangalore**

The number of workers employed is 2,500. Most of the workers employed in the city mills live in their vicinity. The small unit in the city has supplied no housing to its workers. The bigger unit, which is a combined cotton and woollen manufacturing company has constructed 313 houses in which 12 per cent of the permanent workers are provided with accommodation. This mill has reserved about 44 acres of land for its housing scheme.

The housing accommodation supplied to the workers consist of three types: the first consisting of a front courtyard, a kitchen and a living room; the second containing a verandah ; a living room ; a kitchen, a back-yard and a flush latrine and the third type consisting of two living rooms, a kitchen a back-yard and a flush latrine. The houses are built of bricks with tiled roofs. The rooms are well lighted and ventilated. The rent charged varies from Rs. 1-4-0 to Rs. 2-0-0 per month per tenement.

Some of the workers have built huts in the neighbourhood of the mill. All the mills, particularly the largest unit, have been doing considerable amount of work of the welfare activities, have provided fully equipped dispensaries in the mills, a Maternity and Child Welfare Centre, and facilities for the workers' recreation.

CHAPTER XLVII

CARPET WEAVING

The total number of carpet weavers in 4 centres, *viz.*, Srinagar, Mirzapur, Amritsar and Gwalior has been estimated to be 2,050. Out of them 800 are employed in Srinagar, 450 in Mirzapur, 450 in Amritsar and 350 in Gwalior. The housing conditions are pretty bad. Excepting one or two factories all other are veritable spectacles of squalor and insanitation. Dust, dirt and particles of wool flying in carding rooms are a serious source of troubles, especially to lungs and throat.

Mirzapur

The L. I. C. investigated 67 houses in Mirzapur out of which 42 were owned by workers themselves, 21 by other individuals and 4 by the factory. Out of the 67 houses, 23 were one room tenements, 27 two-room tenements, 7 three-room tenements, 7 four-room tenements, and 3 five-room tenements.

The average rent per house comes to Rs. 1-4-9 per month. In 10 per cent of the cases the workers paid only a ground rent varying between 4 and 8 annas a month and the superstructure of the houses remains the property of the workers. Only 31 out of the 67 or 46.3 per cent of the houses, had courtyards or enclosed spaces for the exclusive use of the tenants. In only 8 or roughly 26 per cent of the houses having courtyard facilities, the privacy of the tenants was not disturbed, whereas in the other 23 cases, courtyards were commonly used by two or three tenants and their families. 26 or 38.8 per cent of the sampled houses had the additional facilities of verandahs and 23 per cent of these verandahs were used in common with other tenants. Out of the 67 houses 5 houses were provided with common latrines, 6 with separate latrines and 56 houses had no latrines. The majority of the houses drew their water supply partly from public taps and partly from wells. In about 45 per cent of the cases, the workers used the wells only.

General

Most of the houses of the carpet weavers were *kutcha* structures. In a very small number of cases, the walls and roofs were *pucca*. A fair number of houses were a combination of *kutcha* and *pucca* structures. Generally, the outer walls were made of bricks or stone and the inside walls of mud. 53 houses had tiled roofs, 3 tinned roofs, 3 *pucca* roofs, 7 stone slabs. While the interior of the houses was generally tolerable, 33 per cent of the houses were dirty. In only 7 cases, the floor was found to be paved with stone slabs and in all other the entire floor was *kutcha*, barring the small space of about 4 ft. × 4 ft. The drainage inside the houses was quite unsatisfactory, and in many cases the drains were either *pucca* or semi-*pucca*. Public drains outside these houses were intolerable and some of them emitted a stinking smell.

Jammu and Kashmir State

The employers have no housing schemes of their own. Several weavers own their houses in Srinagar while others live in rented tenements. These are situated in narrow *kutcha* lanes which are exceedingly dirty and unhealthy. It will be no exaggeration to say that old Srinagar constitutes today one vast slum city. Underground drainage is absent and the over-ground drains are not properly looked after. Water accumulates near water-taps and forms a suitable breeding ground for mosquitoes. Public latrines are exceedingly dirty. There is an entire absence of municipal urinals and people urinate on road sides and in ill—drained gutters. Rubbish deposit and water-logging are the common features of the city.

One house comprising 3-4 rooms is usually shared by two or more brothers. Ordinarily mattings are spread over in the bed room which rarely has any ventilation. The flooring is *kutcha*. Ceilings are low and have turned black due to smoke. Wooden roofs in the upper storey of several houses have big holes through which snow and rain-water drip in. There is seldom any provision of latrines. There are generally no water taps, urinals or bath rooms. Some houses and tenements are fitted with electric light. A very small room serves as kitchen. There are usually no outlets for waste water either in the kitchens or in the premises of houses.

Amritsar

Out of the 100 houses surveyed by the L. I. C. in Amritsar 60 dwellings had one living room, 25 had two rooms and 14 three rooms and one had five rooms.

The total number of habitable rooms in the dwellings surveyed was 157. The average size of dwellings was thus 1.6 rooms. The total number of occupants was 358 persons of whom 279 were adults of both sexes and 79 children below 9. The average density of occupancy was 2.3 persons per room of an average area of 151 sq. ft.

In one room dwellings the density was the highest and higher than the average for all dwellings by .5 person per room. In dwellings of larger size it tended to vary but was in every respect below the average. It is worth noting, however, that the average area of habitable rooms in dwellings at Amritsar was larger than the average in Delhi. At Amritsar it was 151 sq. ft. as compared with 105 at

Delhi. This is one redeeming feature in favour of Amritsar. Inadequate as the provision of elementary housing amenities is in all dwellings taken collectively, their distribution is such as to weigh specially against one-room and two-room dwellings wherein conditions in respect of over-crowding are also worse. It appears that Amritsar dwellings were completely devoid of subsidiary rooms and most of them had no verandahs. Only 4 out of 60 one—roomed dwellings had kitchens. So the majority of the households had to do their coaoking and storage in their living room. About 40 per cent of one-roomed dwellings and 56 per cent of two-romed dwellings used courtyards for cooking and sleeping outside. Bathrooms were almost conspicuous by their absence. In the matter of latrines, the situation was really worse. In 56 out of 60 one-roomed dwellings having latrines as many as 53 were used in common. In two-roomed dwellings 10 latrines were in common use. Only three dwellings had electric lights.

CHAPTER XLVIII

COIR MATS AND MATTING INDUSTRY

Alleppey

The employers have not provided any housing either severally or collectively, and workers have therefore been obliged to make their own private arrangements. They live in two distinct areas—the villages round about Alleppey and the municipal area of Alleppey. About three fourths of the workers in the coir factories live in the former and only one fourth in the latter area.

The general type of the houses of the coir factory workers living in the town area is almost the same as that in the village area. For, the houses in both the areas are built of bamboo poles interspaced with coconut leaves and thatched roofing. The huts are walled and roofed with coconut thatch. These huts are usually one-roomed floored with sand and have no provision for a separate kitchen or storeroom.

(*i*) Village Area—Most of the workers live in their own houses built out of their own small savings or by borrowing or by both. Though the houses are owned by the workers, the land on which they have been built is the property of private landlords to whom ground rent is paid. The workers pay ground rent in the shape of two important items of services, namely (*a*) watering their coconut trees for about 3 months in the hot season, and (*b*) watching their property, particularly the fruits on trees. It is estimated that, in terms of money, these services would amount to Rs. 1-8 to Rs. 3 per mensem. The largest number of tenants are those who water 11 to 40 trees. Most of the houses have no plinth and are liable to be flooded in rains. Of the 37 houses investigated by the L. I. C. 14 were one-chambered, 22 were two-chambered and only one was three-chambered. Two houses alone had verandahs on one or more sides. Only 5 houses had a floor area of over 200 square feet and that 54 per cent of the houses (20 out of 37) had a floor area of 150 square feet and below. The maximum area noted was 375 square feet and the minimum was only 83 square feet. Though there is no congestion, the huts usually lack all amenities of sanitation, water supply, lighting and latrines. The ponds used for taking drinking water are different from those where people bathe and wash their clothes. Hence, in many cases, people have to walk a fair distance for fetching their drinking water.

The average number of occupants is 5.49 persons, which includes children below 9, the total number of adults and children below 9 in the 37 families being 155 and 48 respectively.

Although the inhabitants of these houses live in the open, enjoying the free and pure air of the countryside, they have to walk some miles, carrying with them their midday meal to their places of work in and around Alleppey.

(*ii*) The Town Area :—Workers' houses in the town differ from the foregoing village houses in respect of (*a*) terms of tenancy, (*b*) comforts and conveniences provided (*c*) amenities available, and (*d*) the distance from the factory.

The town houses of the workers in coir factories are owned by the workers themselves, like those of their fellow-workers in villages. But, unlike the village houses, ground rent here is paid mainly in cash. Nearly 50 per cent of the houses had to pay cash to their landlords.

The town houses of the coir factory workers have been built with an appreciation of comforts and conveniences for living. For example, 36 out of the 67 houses (53.7 per cent) are built on plinths as against only 16 per cent (6 out of 37) in the village area. Moreover, a larger number of houses in the town have better flooring than the village houses. Again 7.5 per cent of the houses (5 out of 67) have 3 chambers as against only 2.7 of such houses in the village area. Lastly, 29 out of 67 (43.3 per cent) houses have a floor area of 200 square feet as against only 13.5 per cent of such houses in the villages–though the average number of persons in both cases does not record any great difference. In the case of verandahs, too, it is found that 27 out of 67 houses in the town have verandahs, as against 2 out of the 37 houses in the villages.

The town houses enjoy better facilities than the village houses with regard to drinking water. For, it is found that out of the 67 houses 38 had access to protected water supply from the municipal water taps, 6 houses used water taken from *pucca* masonry wells and only 23 had to depend upon surface ponds like the village houses.

With regard to latrines, the town houses are in the same said plight as the village houses. Out of the 67 houses studied by the L. I. C. the occupants of only 15 houses had access to the municipal public latrines though, even here, the latrines were located at a distance of about 2 to 3 furlongs—whereas in all other cases, the occupants had to use the open space or the sides of the canal. The town of Alleppey, as a whole, lacks woefully in conservancy arrangements. The average number of occupants per room of the coir factory workers living in the town is 5.56, the same as that of those who live in the villages,—

(*i.e.*, 5.49) Though the town houses command a few elementary comoforts and better water supply, the surroundings in the midst of which they are located are far from sanitary. The health of the town dweller is considerably inferior to that of the village dweller.

Cochin

Housing conditions of workers in the coir factories of Cochin are similar in many respects to those of their fellow workers in Alleppey. Workers live both in the municipal area of Cochin town proper and in the adjoining villages. The general type of the houses is the hut, walled and roofed with coconut thatch and bamboo poles and floored with sand.

The houses in the town area have access to protected water supply—from the public water taps and to some extent also to the public latrines provided by the municipality, but those in the village area lack both these amenities as they depend on surface ponds for drinking water and the open spaces near their house as places of public convenience. The workers in the town area live in rented houses, the rents of which have risen all over.

CHAPTER XLIX

RAILWAYS

The total number of employees (permanent and temporary) on all Indian Railways and in the office of the Railway Board and other offices subordinate thereto, excluding staff employed on construction, at the end of the year 1947-48 was 823,712 as compared with 771,993 at the end of 1946-47. The figures exclude, for purposes of comparison, the number of staff on the Bengal Assam and North Western Railways and Eastern Punjab and Assam Railways. The total route mileage at the end of the year was 33,985 inclusive of Assam and Eastern Punjab Railway.

The general policy with regard to housing of railway employees, is to provide houses only to those who are required, for special reasons, to live close to their places of work (the medical staff, station staff, running staff, carriage and shed staff, and those employed on the permanent way) and in those cases where private enterprise would not be forth-coming to meet the demand for housing. The existing housing accommodation for railway workers being considerably limited, many are obliged to live in houses constructed by private landlords.

Percentage of employees housed

On the G. I. P. Railway 23 per cent, on the Bengal Nagpur Railway 51 per cent and on the East Indian Railway 50 per cent of the workers, excluding the clerical and workshop staff, have been provided with quarters. The Jodhpur State Railway (now part of the Western Railway) had provided 80 per cent of its workers with houses. The position seems to be fairly satisfactory on Class II and Class III railways as can be seen from the following data :—

The scale of accommodation varies on different railways. The standard of housing provided varies for different categories of non-gazetted staff drawing up to Rs. 100 per mensem :—

Menials

One room of 80 to 120 sq. ft. in area ; a verandah of 45.55 sq. ft. and sometimes a courtyard of 100 sq. ft. in area. In some cases, a kitchen is provided, *e.g.*, Bombay Port Trust. On the South Indian Railway, one of the types has two rooms of 200 sq. ft. in area and also a latrine.

Skilled Artisans

One or two rooms of 140 to 200 sq. ft. in area ; a verandah of about 100 sq. ft. and in some cases a courtyard. In some cases, a bath room, (*e.g.*, B. N. Rly.) and a kitchen (B. B. & C. I. Railway) are provided. On the South Indian Railway, the rooms have an area of 230 sq. ft. In one type and 385 sq. ft. in another with verandahs of 120 sq. ft. and 250 sq. ft. respectively. These houses also have stores, kitchens baths and latrines.

Junior Subordinates

Two rooms with a total area of 200 to 310 sq. ft., one or two verandahs of 100 to 200 sq. ft., kitchen 40 to 76 sq. ft. and, in some cases courtyard, bathroom or bathing place and store. In some cases, separate water-closet (flush-out latrine) is provided, *e.g.*, Bombay Port Trust. On the South Indian Railway, one type has 4 rooms of 600 sq. ft. with verandahs of 420 sq. ft., store, bath, and latrine.

Subordinates

2 to 5 rooms with a total area of 300 to 1,600 sq. ft., one or more verandahs, kitchen, bath, store and in some cases a courtyard. In some cases, separate water closet, (*e.g.*, Bombay Port Trust and B.B. & C.I.) and outhouses (B.B. & C.I. and S.I.) are provided. On the South Indian Railway, one type has 5 rooms of 1,160 sq. ft., verandah of 1,150 sq. ft., store of 76 sq. ft. and kitchen of 120 sq. ft.

The percentage of one room dwellings is necessarily higher in a rural than in an urban centre. On a Class III railway, like the Bombay Port Trust Railway, most of houses are one room dwellings only. In big urban centres like, Madras and Goya Gate there is a small percentage of houses with 3 rooms and more. At Goya Gate there are some private owned houses with 3 or more rooms.

Density of occupancy

The first important feature of railway houses, as in the case of private houses, is the higher density of occupancy in one room dwellings as against dwellings with two rooms and more. The highest density of occupancy is prevalent in the urban centre of Madras on the S. I. Railway.

The second important feature is the very high percentage of habitable rooms to the total number of rooms and the percentage of occupants to total number of occupants in one room and two room dwellings as compared with dwellings with 3 rooms and more. This shows that, in houses containing 3 rooms and more, there are only a few habitable rooms and that the remainder are utilised for various other purposes such as bath, kitchen, store, etc. A fairly high percentage of dwellings possess verandahs and courtyards.

Water supply is provided by means of common taps or wells.

There is no provision for electric lighting except in the centres on the then Baroda State Railway and S. I. Railway.

For a study of the housing condition of the Railway coolies, 24 houses in Madras, 13 houses in Shoranur were investigated by the L. I. C.

In Madras, one room dwellings accounted for 91.7 pr cent of the total dwellings, due to overcrowding in Madras city where rents are very high. The density of occupancy in one room dwellings was 3.9 as against 2.2 in two room dwellings. The percentages of occupants to total in all dwellings were 90.5 and 9.5 respectively. Though there were no subsidiary rooms either in one room or two room dwellings, 81.8 per cent of the one room dwellings had verandahs and 18.2 per cent of the same had separate kitchens, bath rooms, latrines, water supply (common taps) were fairly satisfactory.

Housing conditions at Shoranur were comparatively better owing to the availability of facilities on the west coast for cheap building materials (tiles, timber, etc.), and the cheapness of cost of construction. For, two room and three room dwellings constituted 46.2 per cent of the total dwellings, though density of occupancy in one room dwellings was 7 per cent as against 3.4 and 2.5 in two room and three room dwellings respectively.

In October, 1945, a Committee known as the Mitra Committee was appointed to report on the accommodation and amenities to be provided in the quarters for various classes of railway employees. The Committee was also asked to examine the possibility of improving the standard of housing for the lower paid staff and to suggest possible improvements in the existing quarters to bring up to the standards prescribed for new quarters.

The Committee recommended six types of quarters, ' A,' ' B,' ' C', ' D', 'E', and ' F ' type. 'A' was to have 2 main rooms, type ' B ' 2 better rooms, ' C ' 3 rooms, ' D ' 4 rooms, ' E ' 3 rooms and ' F ' 4 rooms. Of these types, ' A ' is meant for class IV and the remaining types for class III staff. 'A', 'B' , ' C ' and 'D' are enclosed types and 'E' and ' F ' open types. All quarters are to have minimum amenities like bath places, washing places, shelves, almirahs, etc., and electric lights were to be provided, where electricity is available. The Committee recommended that houses should be provided in the first instance for all " essential staff"—essential in the sense that they are liable to be called on duty in an emergency or have to attend to work at inconvenient hours and thus have to remain near the site of work, or at places where no private houses are available. The existing quarters were to be improved to the proposed types on a planned basis.

The Mitra Committee based its recommendations on the conditions prevailing in 1943-44 and the preceding years. Since then the cost of construction has gone up and the number of staff has also increased. It is estimated that if the recommendations of the Mitra Committee are implemented for only permanent staff, an expenditure of nearly Rs. 190 crores will have to be incurred. Such a heavy outlay is ruled out. The Ministry of Railways have decided to adopt austerity standards of accommodation. General Managers of individual Railway Administrations have been given the discretion to adopt designs and building materials which would ensure reasonable durability and cheapness. In towns like Bombay and Calcutta where land is expensive and difficult to obtain, single room multi-storeyed quarters are to be constructed for class IV staff, but the design would permit of conversion into two room units later. The railways are also concentrating on the construction of 'A' type quarters for essential operating class IV staff are spending about Rs. 3.5 crores on housing their labour.

A great deal of research has been done in the evolving of types of construction which takes into account the present day shortage of building materials and the high cost of construction. A few experiments were made;

(*i*) Quarters are constructed with: (*a*) Pise walling (rammed earth in soil cement and ordinary earth), (*b*) Adobe walling, (*i.e.*, Blocks in soil cement), (*c*) Roofing—precast cinder concrete jack arches and (*d*) Plaster—weather proof cement soil cinder plaster.

The building esearch organisation of the Railway Board estimates that there is 30 per cent saving in the cost of such buildings as compared with bricks and cement or lime construction.

(*ii*) "Gunited houses" have been constructed on the former B. B. & C. I. Railway. This type of construction first evolved in America, has been adapted for use in India. A mixture of one part cement and five parts of sand is sprayed through a gun on to framed panels covered with wire or bamboo mesh. Materials required for this type are cement, sand, wire, or bamboo mesh and scrap steel, all of which including scrap steel are locally available.

(*iii*) Hollow blocks cast with the help of suitable machinery were used by the former Assam Rail Link Project and are being used by the Chittranjan Locomotive Works. This type of construction is cheaper in cost and also quicker.

CHAPTER L

PRINCIPAL MUNICIPALITIES

The report of the Labour Investigation Committee on labour conditions in principal municipalities in India was published in 1946. Thereafter some reports have appeared from time to time. In 1951, however, the Labour Bureau of the Government of India issued a general questionnaire to collect up-to-date information in regard to municipal labour. The following table shows the total number of workers employed by different municipalities :—

Name of the Municipality.	No. of workers employed (figures include, men, women and children)
Ahmedabad	6,180
Madras	10,648
Ajmer	875
Delhi*	6,380
Simla	874
Kanpur	3,255
Calcutta	20,291
Gauhati	336
Cuttack	631
Bombay	27,182
Lucknow	6,265
Poona	2,640
Bangalore	2,420
Hyderabad	2.208
Ambala	186
Patna City	1,563
Coimbatore	1,123

Some of the municipalities, namely, Bombay, Hyderabad Ahmedabad and Delhi have appointed Labour Officers to attend to the grievances of the workers. Madras Corporation created the

(including New Delhi Municipal Committee).

post of Labour Officer but due to its poor finances, the appointment has been deferred for sometime. In Bombay and Hyderabad Works Committees have also been constituted. The housing conditions in some of the municipalities are given below:—

Bombay

The Bombay Municipal Corporation is a very large employer of labour, and employs 27,182 workers.

The Bombay municipality has provided housing for about 50 per cent of its employees. The proportion of the workers housed varies from department to department. In the allotment of housing preference is given to workers like Fire Brigade staff as the nature of their work makes it necessary for them to live near the places of work. The accommodation provided is a single room 10 ft. × 8 ft. The rooms are, however, well ventilated and the sanitation is good. In some of the tenements there are two rooms including a kitchen and a bath.

The municipality has altogether 127 *chawls* and has hired six comprising 30,127 rooms in all. Each tenement consists of one room 12 ft. × 10 ft. In some of the newly built *chawls* there are double room tenements, one a living room and another a kitchen. The rent charged varies from 5 to 10 annas per month. These rents cover only the husband and wife in the family. All others including adult members of the family have to pay rents. As the rent is based on the number of persons living in the tenement a large family has sometimes to pay about Rs. 5 or Rs. 6 a month.

At Phalton Road some of the conservancy staff has been housed. The area of the room in the tenement is 10 ft. × 12 ft. There is no underground drainage. Water supply is somewhat scanty. The rooms are however, electrically lighted. Lighting and ventilation are poor. There are common latrines for each floor and also common bath rooms. Bathrooms have, however, been constructed in the compound of these *chawls*. In Agripada the *chawls* are single storeyed, the rooms facing each other with an open corridor in between. The central corridor is chiefly used for cooking and the walls are full of smoke and soot.

In the Conservancy department 75 per cent of them have been provided with housing accommodation.

Since April 1943 the municipality has discontinued collection of rent for the quarters provided. Workers entitled to housing accommodation but not provided with, are allowed a house rent allowance of Rs. 6 per month. Some new tenements were reported to be under construction.

Ahmedabad

The total number of workers employed by Ahmedabad municipality was 8,159 in 1948 but it dwindled down to 6180 in 1951. The municipal authorities have provided 582 quarters out of which 304 are occupied by Harijan employees. The rent has been fixed between Rs. 2 and Rs. 10 per month according to the accommodation provided. These quarters consist of a room 16 ft. × 10 ft. together with a kitchen and a verandah each 10 ft. × 8 ft. Some of the labour employed in Fire department, water works, drainage, pumping station, etc., have also been provided with free quarters. No rent allowance is paid.

Nagpur

The total number of workers employed by the Nagpur municipality was 1,366 in 1948. The quarters are of three types. One-roomed houses, two-roomed houses and houses with one room and a verandah. Singlerooms are generally 10 ft. × 8 ft., the dimensions of the verandah being 8 ft. × 5 ft. The monthly rent varies from Re. 1 to Rs. 2 per quarter. These houses have *pucca* walls, in some cases even the floors are paved with bricks. The roofs are either *pucca* or thatched with tiles or tin. There are complaints that regular repairs and whitewashing are not attended to. In a large number of cases more than one family lives in one quarter. Common water taps and latrines have been provided in each *Ahata*. Acute housing conditions in the city have led to congestion in these quarters as well.

These quarters are in a very unsatisfactory condition. There are open drains all round and the compounds are in a filthy condition. Nor is there adequate provision for the supply of water and sanitary arrangements.

About 30 workers out of a total of 275 working in the water works also have been provided with rent-free quarters which are one-roomed houses. Common latrines and water taps have been provided.

Madras

The total number of workers employed by the Madras Municipal Corporation was 10,648 in 1951. 20 per cent of the workers have been provided with quarters. So far 2,460 tenements with drainage and water supply amenities have been constructed for the low paid staff and the rents of the quarters vary from Rs. 1-8-0 to Rs. 2-8-0 per month. Generally each tenement consists of one bed-room with a verandah and an attached kitchen. There are some two-roomed tenements also. An increased house rent allowance of Rs. 4 per month is paid with effect from 1st April, 1951 to all labourers who do not get housing accommodation. Most of the workers who built huts of their own on the Corporation or Government land for which they are required to pay a nominal rent. In the huts built by the workers themselves on municipal plots, there is no provision whatsoever for sanitary arrangements and they present a most squalid picture of dirt and neglect. Nor are the workers living in tenements owned by private landlords in a very much better position. There the rent which has to be paid is sometimes as much as Rs. 4 per month for a single room. The housing conditions of municipal workers in Madras are, on the whole, unsatisfactory.

Calcutta

The total number of workers employed in Calcutta by the Calcutta Corporation was 20,291 in 1951. 64 per cent of the workers receive house rent allowance of Rs. 1-8 per month. Of the remaining 30 per cent, 24 per cent have been provided with requisitioned quarters at a concessional rent of Re. 1 per month the rest having been accommodated in Corporation Labour Camps free of charge. The accommodation provided is 40 sq. ft. of living space for each employee.

Delhi

The total number of workers employed by the Delhi and the New Delhi municipalities was 6,380 in 1951. About 10 per cent of the workers have been provided with free quarters by the Delhi Municipality, others receive a house rent allowance admissible to Central Government servants. Each quarter consists of a room, a spacious verandah and a courtyard. Rent charged is between Rs.7 and Rs. 10 per month. New Delhi Municipality provides housing accommodation to about 46 per cent of the staff. The rent charged is about 10 per cent of the emoluments.

Simla

The total number of workers employed by the Simla municipality was 879 in 1951. Accommodation is provided to 36 per cent of the sweepers. In addition, there are 34 sweepers occupying labour hostels provisionally. The quarters are generally single room tenements. Inferior staff in the Health Department, who are not provided with accommodation, are allowed Rs. 2 per month in its lieu.

Poona

2,649 workers were employed in 1951. Housing accommodation has been provided to 14 per cent of the municipal employees. The monthly rent ranges from Re. 1 to Rs. 6 for one-room tenement and from Rs. 9 to Rs. 11 per month for a two-roomed tenement. Every room has a verandah attached. Employees not provided with free accommodation are given a basic rent allowance of Rs. 5 per month.

Bangalore

The municipality employed 2,420 workers in 1951. Free accommodation has been provided to 60 per cent of the sweepers and the rest are given Rs. 2 per month as rent allowance. The quarters consist of one-room tenements, with a kitchen, bath room and latrine attached. One water tap is provided for a block of 10 houses.

Hyderabad

About 2,200 workers are employed. Housing accommodation is provided to about 10 per-cent of the staff. The rent charged is Rs. 2 per month per tenement, which consists of one room (10′ × 10′) with a small verandah and a kitchen. Each labourer is allowed Rs. 5 per month as house rent.

Lucknow

The municipality employed 6,265 workers in 1951. 5 per cent of the conservancy staff and four per cent of the outdoor distribution staff are provided rent-free quarters. Every quarter consists of one living room, one kitchen, a verandah and courtyard. New constructions contain all modern sanitary amenities. House rent allowance is not allowed except to sweepers who are given 8 annas per month.

Patna

The municipality employed about 1,600 workers in 1951. Rent-free quarters, which have recently been built, have been allotted to about one-third of the conservancy staff. Each quarter contains a room and a verandah. The floors are cemented. No basic rent allowance is given to persons not provided with housing accommodation.

Cuttack

There were only 631 workers employed in 1951. About 170 families of sweepers have been provided with rent—free quarters. The rest of the employees who are living in their private houses are exempted from municipal taxes. The quarters given to them contain one bed room, a kitchen and two verandahs. No house rent is paid to those who are not allotted quarters.

CHAPTER LI

PORTS

Bombay Port Trust

The total number of persons employed under the Bombay Port Trust and the Port Commissioners was 17,646 in 1950. Labour employed in the ports is not engaged by one authority as in other cases but by different agencies, namely, Port Trusts, stevedores coaling firms, etc. The average daily number of workers employed by stevedores at the Bombay port was about 3,400 in 1951. The average number of other workers such as ship repairing and painting labour, coal labour and launch and bargemen is about 3,000. The Bombay Port Trust has housed about 30 per cent of its workers. It has established two independent housing colonies, one at the Antop village and the other at Wadi Bunder. The former is under the control of the Labour Welfare Officer, while the latter is under the control of the Docks Manager.

Antop Village

The colony comprises 571 residential units. They are single storied two room cottages out of which about 86 have also a covered verandah 4 ft. wide. The floor area of each unit is 180 square feet. The average number of persons staying in each unit is about 8, thus giving a floor area of 22.5 sq. ft. per person. Each room has generally one window and two doors. Ventilation and lighting are satisfactory. Electricity has been provided for street lighting but kerosene oil lamps are used inside the homes. The water supply is inadequate in spite of the provision of 17 water storage tanks in the colony. Common bathrooms, latrines and washing places have been provided for each block of houses. The general sanitation is poor as open drains pass through the centre with houses on both sides and people throw garbage and filth into the open drains. The rents are Rs. 3-4-0 for scavengers, Rs. 6 for engineering employees and Rs. 5 for railway employees per month. There is a railway station close to the colony and the post office and market are easily accessible. The distance from the colony to the work place is about 5 miles. Fifty new units have been constructed recently. The Port Trust has employed a Welfare Superintendent and also a Sanitary Inspector to look after this colony.

The housing colony at Wadi Bunder consists of seven *chawls* providing accommodation to two types of workers (*a*) scavengers and sweepers and (*b*) other labourers. There are in all 687 residential units. Some of them are for scavengers consisting of a single room and a common passage, while the general labourers are housed in four five-storeyed *chawls* built of concrete. The latter residential units are of double-row type with a central corridor 8 feet wide. All these quarters are single room tenements with a floor area of about 120 sq. ft. each. The average number of persons occupying a room is sometimes as high as twelve. Congestion is still more intensified by the habit of some families of taking in paying guests. While the rooms on the upper floors are better lighted than those on the lower, tap water is available only on the ground floor. Only 8 latrines and 8 bath-rooms are provided for each floor. These *chawls* are in most insanitary condition. Rentals of the tenements vary from Rs. 3-12-0 to Rs. 5-8-0 per month and permanent employees are charged 10 per cent of their monthly earnings.

In addition to the above two colonies, the Trust has built 525 single, double and three room quarters at various places in the Port area including quarters for crane-men at Carnac Bunder and quarters for Railway workers at Wadala.

Calcutta Port Trust

There are about 24,000 people employed in the Port of Calcutta. Approximately 50 per cent of the workers employed by the Port Commissioners of Calcutta are provided with free quarters which are spread over in different localities, usually within a mile of the place of work. All the quarters are for single men and contain one room and a verandah only. The average floor space per room is about 45 square feet. They are either in lines or in back to back tenements. They are brick-walled with tile or corrugated iron sheet roofs. They are mostly *pacca* structures and the floors are cemented. On the whole they are not badly lighted and ventilated and compare very favourably with the housing provided by employers in other industries in Calcutta. The arrangements for the supply of water and sanitation are not unsatisfactory. There are no bath-rooms in these tenements. Sub-letting or occupation by others is not allowed and the tenants are evicted on retirement or dismissal. The Port Commissioners of Calcutta have a programme for the building of some more quarters for their employees.

Madras Port Trust

The number of persons employed by the Trust was 5,700 in 1949. The Madras Port Trust provides housing to a very small percentage of its employees. Only certain coolies who are required on emergent work, and a few scavengers have been provided accommodation. Many of the employees of the Trust come from distant places in the city and surrounding villages and there is a great demand for housing for the employees of the Trust. The authorities have not been able to undertake any housing schemes for their employees owing to lack of space.

Cochin Port

The total number of persons employed at the Port was 2,681 in 1950. The labour employed is mostly local in character and comes from the neighbouring villages round-about the port of Cochin. No housing has, therefore, been supplied by the authorities for their labour. In regard to contract labour, however, about 300 quarters have been built to house contract labour. The rent charged is Re. 1 per month to the contractors, although the contractors let them out rent-free.

Visakhapatnam

The total number of workers employed in Visakhapatnam Port was 3,329 in 1950. As Visakhapatnam was not an industrial town, many skilled and unskilled workers had to be recruited from surrounding places. The authorities recognised the necessity for providing the workers with good housing accommodation and the importance of other labour welfare schemes from the very beginning and a plot of land measuring about 145 acres was acquired on long lease from the Port authorities. A staff colony has been constructed on modern principles of town-planning and houses of different categories for different classes of workers have been built. The quarters are let on pretty low rent which is not sufficient even to meet the maintenance charges (10 per cent of the pay of the employees). All modern facilities—water supply, drainage, medical and maternity aid, primary education, electric supply—have been provided for the colony. The locality has also been equipped with parks, play grounds, sports, club, etc. Those who have not been provided with quarters get a house-rent allowance at Rs. 5 and 7 per month.

Seamen

The Indian Sailors' Home in Bombay can accommodate 500 men. The New Indian Seamen's Hostel opened in June, 1950, can accommodate another 500 men. In Calcutta, a small hostel providing accommodation for about 50 seamen is being run by the Merchant Seamen's Amenities Fund Committee. A scheme for the construction of a Seamen's Home in Behala to accommodate 1,000 seamen is under way and construction is expected to commence in a few months. The construction of a small hostel for Indian Seamen in Madras on a site offered by the State Government is also under consideration.

CHAPTER LII

DOCKYARD LABOUR

The important dockyard centres in India are Bombay, Calcutta, Cochin and Visakhapatnam. With the commencement of the World war II, the dockyards in the various parts of the world assumed great strategical importance and the dockyards in Bombay became the major dockyards in the East. The ship building and ship repairing industry is one of the essentially war expanded industries and employs, apart from contract labour, about 50,000 persons whereas the pre-war employment figure was only about 17,000. Thus there was a phenomenal rise in the employment in the dockyards during the World war II.

Bombay

There are six important dockyards in Bombay:—(1) His Majesty's Indian Dockyard, (2) Mazgaon Dockyard, (3) Bombay Steam Navigation Company Dockyard, (4) Alcock Ashdown Dockyard, (5) Scindia Shipyard, and (6) Bombay Port Trust Mechanical Workshop. The number of persons employed is about 15,000.

Except the Port Trust, none of the concerns has provided any housing for its workers other than for gate sepoys and watchmen. The Port Trust has provided free housing for 40 *khalasis* and 12 watchmen working in the mechanical workshop. These men stay in three large halls in the workshop premises. No special facility regarding water and sanitation has been provided. Thirty other workmen are housed in the Port Trust cement *chawls* at Wadi Bunder. They are single room tenements 8 ft. × 10 ft. and the rent is Rs. 5-8 per month. Congestion is acute, there being sometimes as many as 10 persons in one room.

In the H. M. I. dockyard the police who are on duty have been provided with barracks. The Mazgaon dockyard provides rent-free housing to 40 of its sepoys. It consists of *chawls* with 27 single rooms. The rooms have asbestos roof, stone walls and cement floor. The rooms are of varying sizes: 25 ft. × 20 ft., 25 ft. × 15 ft. and 15 ft. × 10 ft. Ventilation is bad but sanitary arrangements are adequate.

The Scindia shipyard has 5 rooms for 22 of their watchmen and in addition some A.R.P. shelters have been converted for housing the watchmen. Each room is 40 ft. × 20 ft., has four windows and an open verandah 5 ft. wide. Ventilation and lighting are good. The provision of water, latrines and urinals is satisfactory.

The Bombay Steam Navigation Company pay their watchmen Rs. 2-8-0 per month in lieu of housing.

A survey of over 100 houses occupied by the workers was carried out in 1944. Over 50 per cent of the dockyard workers live in the Mazgaon area on account of its proximity to the dockyards. The workers of the H. M. I. dockyard, however, are scattered and some of them live at a distance of 5 miles from the work place. While the Improvement Trust *chawls* are of *pucca* material, the *chawls* belonging to private owners are in a deplorable state. Many of them are low roofed tin and bamboo structures. Some of them are built in brick and mortar, but they are kept in a very filthy condition. Over 80 per cent of the workers live in single tenements.

The average house rent paid works out to Rs. 14-10-8 per month. The dimensions of the single room are 10 ft. × 10 ft. The small room serves the purpose of living room and kitchen. In the crowded areas like Chandanwadi and Kamtipura, the number of persons living in a room is as many as 7. Most of the workers have dependents. Average floor area per person in the tenements surveyed worked out to 29.64 square feet but this calculation takes no account of sub-tenants. The rooms are usually divided into two halves, one being used as a living room and the other as kitchen and bath. In certain *chawls* the rent varies with proximity to taps and latrines. If the room has electric light, the rent is naturally higher. Most of the workers use kerosene oil. Many of the *chawls* have a corridor running through the centre which is often used for cooking with the result that it is full of smoke. Ventilation is very bad and sanitary facilities inadequate. The *Bhayyas* in charge of the *chawls* give all sorts of trouble to the tenants. On an average for about 20 families there are 3 taps and 3 latrines. There is water in the taps only for a few hours in the morning and at night. The Hira Bai Chawl in Mazgaon does not provide any latrines or taps at all.

West Bengal

Calcutta has the following ten dockyards, the first six being important. (1) Garden Reach Workshops, (2) India General Navigation and Railway Company. (3) Port Trust, (4) Shalimar Works. (5) Hooghli Docking and Engineering Company. (6) Port Engineering Works. (7) Ganges Engineering Works. (8) Howrah Trading Company. (9) R. B. Rodda and Company. (10) Calcutta Landing and Shipping Company. The number of workers is about 17,000—18,000.

Housing facilities are available only to a small percentage o operatives engaged in dockyard in West Bengal. Only two concerns, India General Navigation and Railway Company and Howrah Trading Company have constructed barrack type quarters for housing a part of their labour force. In India General Navigation and Railway Company there are four lines, each consisting of 12 rooms. All the lines are *pucca* and each room is 8 ft. × 10 ft. except in one barrack where it is 10 ft. × 10 ft. Each room is provided with window, 2 ft. × 2½ ft. and one door 6 ft. × 3 ft. There is a small verandah in front which is partitioned and generally used for cooking. The rent charged is Re. 1 per month. In addition, there is two storied *pucca* building with two big rooms in each storey measuring 56 ft. This building has a separate kitchen at the back. About 500 men are housed in these four rooms and the floor area per worker comes to about 16 square feet. In Howrah Trading Company 40 people are housed in the Company's quarters. The rooms are *kutcha* with tiled roofs. Each room is 8 ft. × 12 ft. and has one door 5½ ft. × 2½ ft. and a window 2 ft. × 2½ ft. Rent is 8 annas per month. The Calcutta Landing and Shipping Company provides rent-free quarters to about 45 per cent of its labour force.

The majority of the dockyard workers in Calcutta live in the *bustees* of Howrah and Sibpur, mention of which has already been made. These are a mass of single room units often placed back to back and constructed without any plan or arrangement, ventilation or drains. Most of the houses are *kutcha* huts with *kutcha* walls. The floor is usually damp owing to the lowness of the plinth. A room is generally 64 sq. ft. and provides accommodation for 3.5 persons on an average. Thus the floor space works out to 18.3 sq. ft. per head.

The supply of water for *bustee* dwellers, both for drinking and washing purposes, is very meagre and unsatisfactory. In some cases water taps and tube wells are located within a yard or two of the public latrines and exposed to constant contamination from sewage water. The number of latrines is wholly disproportionate to the requirements of the inhabitants of the *bustee* area.

Cochin and Visakhapatnam

South India has three dockyards (*i*) Cochin dockyard (2) Scindia shipyard, Visakhapatnam, (3) Visakhapatnam Port dockyard. The total number of workers is about 2,000.

In Cochin and Visakhapatnam Ports the employees live either in their own houses in the villages or in rented places in the nearby town. The Visakhapatnam Port workers are paid a house rent allowance in lieu of quarters.

The Scindia shipyard has a colony for the workers where 1,037 residential quarters have been built so far. The quarters for workers are of two types: 'W' type for unskilled labour and 'A' type for skilled labour. The 'W' type quarters are built in rows of blocks of 5 and 9 units. Common latrines of the bucket type are provided, but the number of seats is inadequate. Each unit consists of a verandah 14 ft. × 7¾ ft., a living room 14 ft. × 10 ft. and a kitchen 14 ft. × 9 ft. Behind the kitchen there is an enclosed open courtryard of about 14 ft. × 6 ft. The plinth is from 1½ to 2 ft. the floor is of cement, the walls are of stone and the roof is tiled. Ventilators are provided on top of the doors. The rent charged varies from Re. 1 to Rs. 4-8 per month. At present, however, both the types of quarters are given only to skilled workers and the unskilled workers are provided with temporary sheds, 40 ft. to 60 ft. × 30 ft. in size, having only dwarf walls 4 ft. in height. The roof is thatched and the floor is earthen. The state of overcrowding in these sheds can be imagined from the fact that about 250 workers are housed in 4 such sheds. Overcrowding is great in the 'W' and 'A' type quarters, one unit usually accommodating from 15 to 20 workers. Arrangement for drinking water is unsatisfactory.

CHPTER LIII

PRINTING PRESSES

The total number of persons employed in Government Presses is about 15,000, and the number in Government and private presses is about 44,000. The L. I. C. surveyed 671 houses in different centres, *viz.*, Simla, Delhi, Allahabad, Aligarh, Patna, Madras and Bombay. The density of occupancy per 100 sq. ft. varied from 3.0 to 4.3. It is the highest at Aligarh and Bombay, *viz.*, 4.3 persons per 100 sq. ft.

Simla

The housing facilities provided by the employers are almost negligible. One press houses some workers in an outhouse attached to the press building. Another press houses a very small fraction (less than 5 per cent) of its workers on the ground floor of four blocks of houses, each tenement comprising one living room, 10 ft. × 10 ft., a store room, a mixed bath and kitchen and a latrine. They are fitted with electricity but water supply, drainage and ventilation are unsatisfactory. The rent charged is subject to a maximum of 10 per cent of pay and these tenements are situated at a distance of 2½ miles from the press itself. The density of occupancy came to 4.6 persons per 100 sq. ft.

The L. I. C. investigated 60 households occupying 51 private dwellings. The total number of habitable rooms comprised in the 51 dwellings was 83 with 274 occupants. The density of occupancy was 3.3 persons per room of an average area of 100 square feet. About 48 per cent of the inhabitants were living under conditions of acute congestion. One room dwellings which constituted 57 per cent of all the dwellings contained only 35 per cent of habitable rooms and accommodated 48 per cent of occupants. In dwellings of larger size, the percentage was less than the percentage of rooms therein. Less than 16 per cent dwellings had a subsidiary room. Nearly 31 per cent of dwellings all one roomed and two-roomed had no independent kitchens.

There were no bath-rooms in about 60 per cent of the dwellings, all of which were either one-roomed or two roomed. Private and independent latrines were enjoyed by about 75 per cent of the dwellings. One roomed and two-roomed dwellings had no latrines.

In the matter of water supply the conditions were equally unsatisfactory. One two-roomed dwelling only, out of 51 covered by the enquiry, had water laid in it ; 47 per cent had electric connections. In a majority of cases, drainage and ventilation were unsatisfactory.

Delhi

The inquiry covered 210 households occupying 206 dwellings, of which 40 were government quarters. Of these 120 were one-room dwellings, 68 two-roomed, 14 three-roomed and 4 four-roomed dwellings. The maximum concentration of dwellings was in the size of one-room dwellings which accounted for over 58 per cent of the total, followed by two--roomed dwellings which constituted another 33 per cent. The total number of habitable rooms contained in the 206 dwellings surveyed was 314 and the total number of occupants was 958 persons. The density of occupancy for all dwellings was just over 3 persons per room of an average area of 105 square feet.

One-roomed dwellings, which constituted 58.3 per cent of the total number, contained 38.2 per cent only of the total number of habitable rooms accommodated 43 per cent of all occupants. In dwellings of larger size, the percentage of occupants declined relatively to the percentage of rooms comprised in them.

High density of occupancy and absence of amenities join hands in making small dwellings centres of acute overcrowding, discomfort and danger to health. The position in private residences is really much worse than in Government quarters.

Allahabad-Aligarh

104 houses at Allahabad and 63 at Aligarh were selected by the L. I. C. for investigation. Of these 167 houses, 14 were provided by the employers, 61 were rented and 92 were owned by the workmen themselves. Out of 104 houses of Allahabad, 44 were one-room dwellings, 38 two-roomed dwellings, 12 three-roomed dwellings, 6 four-roomed dwellings and 4 five-roomed dwellings. Out of 63 houses at Aligarh 46 were one-room dwellings. The average dimension of a room was slightly greater at Aligarh than at Allahabad. In the 104 shunder enquiry at Allahabad, there were 204 habitable rooms and in the 63 houses at Aligarh there were 88 rooms. The total number of occupants in the sampled houses at Aligarh was 241 adults and 85 children below 15 years of age—thus giving an average of 3.7 persons per room or 23.5 quare feet per head. At Allahabad, however, the total population in the sampled houses was 346 adults and 248 children. In other words, the average per room came to 2.9 persons or a floor space of 27 square feet per head. Rented houses were found more congested than self-owned

The residential houses normally possess courtyards. Some of the houses have verandahs which are used as kitchens, bathrooms, or sleeping rooms. At Allahabad 26 houses were without verandah, 58 were with common verandahs and 20 with exclusive verandahs. At Aligarh 29 houses were without verandah, 21 with common verandahs and 13 with exclusive verandahs. Very few houses have separate bath rooms and kitchens. Only 10 houses at Allahabad and 5 at Aligarh had bath-rooms. Separate kitchens were available in 19 and 9 cases respectively. The common house is mostly made of bricks, the room or floor may be *pucca* or *kutcha*. 66 out of 104 houses at Allahabad and 23 out of 63 houses at Aligarh had good ventilation, but the drainage, in some cases, was very bad. Only 44 houses at Allahabad and 16 houses at Aligarh had *pucca* or cemented drains.

The houses both at Allahabad and Aligarh are mostly single storeyed. In Allahabad, one house had electric light, 78 houses used kerosene and 25 mustard oil lamps. The private rented houses at Allahabad were congested. The average rent per room was Rs. 4.

Patna

Attempts were made by the Labour Investigation Committee to collect actual housing data. From Patna Junction to Patna City Station the whole area was divided into 4 regions and 16 houses in each region were investigated at random.

The common house at Patna is a poor masonry structure with a small courtyard in the middle. There are normally verandahs on three sides of the courtyard with one room behind each verandah. Another feature is that the ceilings are hopelessly low and in some places only six feet. The verandahs are mostly tile-roofed and are very low. Each house may have 2 to 3 two-roomed tenements.

The 3 and 4 roomed tenements were generally self-owned houses, occupied by the owners themselves. The congestion in these houses was naturally the lowest. In the rented houses, the position was rather bad. There were 2 single room tenements with as many as 15 occupants. Ten houses out of 60 had hand pumps while 25 had wells. Five houses had water taps exclusively for their own use while in twenty houses the people utilized the municipal taps in common with persons of the locality. The total number of occupants in the 60 tenements was 264 adults and 161 children, *i.e.*, 425 heads in all, giving an average of 3.2 occupants per room. The average size room has a floor space of 84.66 sq. ft. or 26.5 sq. ft. per occupant. Besides habitable rooms, there were verandahs in 47 tenements, 10 of which were in the exclusive use of occupants while 37 were used in common with other persons living in the same house. These verandahs were being used as kitchens or sleeping rooms. Only 15 houses had separate kitchens and 4 separate store rooms. As many as 45 out of 60 houses had courtyards. The general sanitary condition was very bad because in 44, out of 60 houses, the floor was *kutcha*, where cattle or goats were housed. Only 16 houses, mostly self-owned, had *pucca* flooring. There was no ventilation in 23 houses, *i.e.*, the window or sky hole or any other opening except single door which served both as entrance and exit for the room. 37 houses were found to have some windows and sky holes. In 10 houses with *pucca* roofing, there were ventilators and windows with glasses while 6 houses with mud-roofing had no ventilation. The light in some of the tenements was hardly sufficient. None of the houses had electric light. 41 houses had *kutcha* drains and only in 19 houses drains were constructed of bricks. The average density of occupancy was 50 persons per room. The area of rooms varied considerably between 48 square feet and 120 sq. ft. Verandahs were enjoyed by 14 out of the 24 houses visited. 11 houses had separate kitchens.

Latrine arrangements were in existence in all the dwellings. They were of all sorts ; independent latrines, common latrines, flush latrines and drains. The condition was very insanitary. As regards water supply, independent taps were enjoyed by two dwellings only. The rest had to resort to common taps. Electricity was laid in one dwelling only. The others depended upon kerosene oil for lighting purposes. Monthly rentals varied from a minimum of Rs. 2 to a maximum of Rs. 7. The houses were of *pucca* masonry structure with brick walls. Five of them were terraced and the rest were tiled. Flooring was of either brick or cement. The houses in Purasuwalkam, Chindadripet and Choolai areas were built in such a way that there was provision for an open or uncovered yard in some part of the building, usually in the centre, so that the inmates in all parts of the houses might have sufficient lighting ventilations. All round this open yard can be found verandahs for each room, portions of which are also converted into kitchens or bathrooms.

Bombay

The survey covered 134 dwellings, 129 or 96.3 per cent of which were one-room dwellings. The total number of rooms in them was 141 accommodating 666 occupants. The average density of occupancy was thus 4.7 persons. The average area of rooms was 110 sq. feet. The density of occupancy was highest in one-room dwellings, which accommdated 92.5 per cent of the total number of occupants. They contained in themselves 91.5 per cent of the total number of rooms in all dwellings. The majority was without verandahs, courtyards, kitchens, bathrooms, water supply and latrines.

CHAPTER LIV

RICE MILLS

There were 1,634 rice mills in 1945 employing 52,000 persons before the Partition. The number of workers and mills that has gone in Pakistan area is not known.

West Bengal

West Bengal has about 400 mills employing 15,000 persons. Most of the mills have erected rent-free dwellings for the housing of their workmen. An overwhelming majority of such dwellings have either straw or corrugated iron sheet roofs, mud floor fenced with bamboo mats plastered with clay, mud, cow-dung, etc., Some have cement floors with roofs and walls made of corrugated iron sheets. Only one mill has provided electric lights in the four houses. Congestion is practically absent in the houses supplied by the mills, as only a small proportion of the employees of a rice mill resides in such houses. Generally only the *mistries*, *tindals*, etc., and such of contractors' coolies as are bachelors live in the houses provided by the employers. There is no sub-letting. Female workers live in the *bustees*, where conditions of living are unhealthy and miserable. The workers living in the dwellings provided by mills generally use the latrines, taps and tanks situated in the mill compound.

Madras

There are 832 rice mills in Madras employing an average daily number of 23,690 persons. Most of the employers do not provide houses for local labour. Monthly-paid workers in rice mills mostly live in rented houses (with rent of anything between Rs. 3 and Rs. 10), within a distance of one or two miles from the mill. Other workers live in thatched huts, paying a rent of As. 12 to Re. 1 per head only for the use of ground that is let out. However in some cases especially where the mill is far from the town, the workers are provided with lodging in one form or the other. In one mill of Masulipatam, which is situated outside the municipal limits, the employer allowed the workers to erect cottages on the vacant space around the mill and provided land and building materials free of charge while construction and repair was undertaken by the workers themselves. Workers in other centres have their own huts in the area surrounding mills and pay a nominal rent to the millowner for the use of the ground.

Most of the workers in the State of Madras live in thatched huts. In many cases the roofs are made of either rice straw or coconut leaves. The huts are overcrowded in some places and 4 or 5 families reside in a small room with a kitchen attached to it; in some cases the huts are very small. These workers manage to get on somehow or other in their poor dwellings in summer, when they sleep in the open, but they suffer a lot during winter and the rainy season.

Broadly speaking, most of the monthly paid workers in rice mills live in huts for which rent is paid by them. Some employers, however, have provided small sheds for the use of the watchmen, but in most cases workers prefer their own rented houses to those freely provided by the employer.

Orissa

There are 70 rice mills in this State employing an average daily number of about 2,700 persons. Lodging is provided by the employers in four concerns to certain workers such as watchmen and *sardars*. In three other mills, all workers are provided with free housing. One employer has constructed coolie quarters, with tiled roofing. Here there are about 65 rooms, of which 25 are single rooms and the remaining 40 are family quarters. Separate quarters are also provided in this mill, one for the *sardar*, four for *mistries* and one for the medical dispensary. In another case, the employer has provided about fifty thatched sheds, where each family lives in one room. Another employer has provided 25 rooms (10′ × 10′) with roofs of corrugated iron sheets, and each room is occupied by 3 or 4 families. The congestion here is horrible.

CHAPTER LV

COTTON GINNING AND BALING

The cotton ginning and baling industry in India is easily the most important seasonal industry of the country, providing employment to about 1,20,000 persons. The main centres of the industry are Bombay, Madhya Pradesh, Madras and Punjab. The Madhya Pradesh and Berar factories alone provide employment to about 30,000 workers daily. Of the 30,000 workers employed in the Bombay factories, 15,000 (approximately) are employed in Khandesh thus making total average of daily employment in the whole of the area at 45,000.

Madhya Pradesh

Housing is not provided by the employers as the bulk of the workers either belong to the local areas or come from adjoining villages. Only in one factory six ordinary labourers were given materials for erecting huts for themselves and were allowed to stay permanently within the factory compound. The managers, clerks, mechanics, watchmen, etc., in almost all factories are provided with housing accommodation. The temporary staff is allowed to stay during the season only. In these factories, however, all are allowed to stay during the slack season as well. The clerks, mechanics, etc., are given one room each in *kutcha* built houses or in separate sheds or in bamboo huts. Generally all workers provided with free quarters also get free oil and fuel.

Bombay-Gujrat

The factory owners at Baroach and Pales have made provision for the housing of their imported labour. Excepting some of the mechanical workers, all are dumped together in temporary single room dingy tenements. Generally the practice is to give one room to a family. But 4 or 5 ordinary workers are sometimes made to stay in a small room where even a couple of men would cause crowding. Arrangements for lighting and ventilation are deplorable. In the case of 3 factories housing is provided to 20 persons. In two other factories large tin sheds have been partitioned to provide accommodation to about 75 workers. Apart from these, there is a large number of temporary huts erected to provide living space to about 200 coolies. The general appearance of these quarters and the sanitary conditions in and around them are, to say least, most deplorable.

Madras-Tirupur

The workers live in thatched huts with mud walls as no housing accommodation has been provided. A family has to live usually in one room. There are also huts with two apartments. The labourers have to pay a ground rent of As. 12 per month. These huts are situated on a low level ground and during rainy season there is water-logging in the locality.

In Coimbatore housing problem for workers has become very acute. No housing accommodation is provided by the employers in many cases. There is much of congestion in these localities, since most of the textile mill workers of Coimbatore and employees of the Brook Bond Tea Co. live here. The tenements are owned in some cases by jobbers or by land-holders. Ten families live in one such tenement. All the quarters are one room tenements with tiled roofs. The workers pay a monthly rent of Rs. 4 to Rs. 5. The workers' premises are very dirty ; heaps of rubbish are found which make the surroundings insanitary. There is separate latrine accommodation for men and women. There is a well within the premises, but for purposes of drinking, women fetch water from the nearest municipal water tap.

In another set of workers' quarters there are nearly 18 families living. There are two portions consisting of three rooms each. The rest having only one room. For the former, a rent of Rs. 4-8 per month is paid and for others monthly rents vary from Rs. 2-8 to Rs. 3.

Punjab-Amritsar

In Amritsar two factories have not provided housing accommodation while in another factory only the technical staff is housed by the owners free of rent. In one concern, housing is provided to about 300 workers out of a total of 600. The supervisory and technical men are given rent-free accommodation but the workers are charged rent. There are three types of quarters. Single quarters are one room tenements, without verandah and built in line, the second type is with *pucca* walls and the third type consists of family quarters. There are only three hand-pumps and two wells at the disposal of these 300 workers and there are no bath rooms. There are twenty five latrines in all and some are kept separate for women but they are extremely dirty. The houses provided for the supervisory and technical staff, besides being rent-free, are also better. In each there are two rooms (10′×8′, or 12′×10′) one kitchen, one bath room, one latrine and one hand pump. Most of them, however, look old and dilapidated. There are a few newly built *pucca* brick houses.

Baroda

In two factories, free quarters are provided as far as possible to all and especially to those who come from outside the town. In one factory, the skilled hands are housed in one room tenements. There are 25 huts for ordinary workers also. In one factory, six tin sheds have been allotted to the mechanical staff.

CHAPTER LVI

OTHER INDUSTRIES

A. Shellac Industry

Bihar

The average daily number of workers employed in all shellac factories and workshops, whether governed by the Factories Act or not is about 13,000. Workers employed are mostly local people. Some of the registered factories for their own convenience have built " coolie lines " so as to stabilise labour. In one case, where the total strength of workers is 225, there are 30 rooms available in the lines but workers generally prefer to live outside the factory precincts. The rooms are constructed in two lines, back to back with brick walls and tiled roofs. The floors are *kutcha.* There are no bath rooms ; water from wells is available nearby and ventilation is tolerable. The quarters are generally situated within a furlong or two of the factories. There are no facilities for workers to build their own houses. A few workers live in hired rooms in private houses.

West Bengal

The average daily number of workers employed in shellac factories in West Bengal is about 600. Housing accommodation is not provided by any of the employers and as such workers mostly live in the adjoining private *bustees,* which are invariably congested. They consist of groups of mud huts with tiled roof, bamboo wall and *kutcha* floor. These huts are extremely dirty with open drains passing between two rows of huts. Common latrines and taps are the usual features. Congestion in these ill-ventilated, insanitary and unclean huts in the *bustees* affects the health of the workers.

Madhya Pradesh (Gondia)

The total number of persons employed in the shellac industry in Gondia is estimated at 2,000. A few of the factories provide lodgings for the workers who come from outside. These are single rooms, provided in a row on one side of the factory premises. The dimensions of a room are 10 ft. × 10 ft. in the case of one good factory and 8 ft. × 6 ft. in the case of another. The rooms have only one door and no other opening, and there is a very small verandah with earthen floor attached. In the rainy season, the whole area outside becomes muddy and water-logged and sometimes water enters even into rooms. All workers cook their food on the furnace itself. The local workers live in their own houses or rented quarters. These are mostly sheds, low-lying, standing on wooden posts and having a tiled roof with mud walls or bamboo *tatties* plastered with mud.

B. Mineral Oil Industry

The total number of workers excluding supervisory staff getting more than Rs. 200 per month and clerical staff employed in the industry was 6,564 in 1947. The Assam Oil Company houses 57 per cent of its employees in Digboi and 42 per cent in Tinsukia. The company has built 3,836 quarters of 7 different types, *viz.*, C. E. 2, C. E. 43, C. E. 44, C. E. 45, C. E. 125, C. E. 8 and C. E. 8 (3 roomed). The number of quarters of each category is 2,456, 404, 104, 158, 517, 97 and 100 respectively.

C. E. 2 quarters are the poorest and meant for bachelors only. They are built in barracks of 100 rooms each having front verandah 2 ft. wide cement floor, brick walls and corrugated iron sheet roof with a canvas ceiling, having one window with iron bars fixed in it. For each barrack there is a seven seat latrine with flush arrangement and a urinal. Unskilled workers with families have no houses provided for them except in the Nepalese quarters and sweeper lines and have to go to *bustees* or settlement areas. There is considerable congestion in the Nepalese quarters and sweeper lines. For skilled workers there are generally blocks of two houses though there are some blocks even with five houses. At Digboi 49 per cent of the workers and 75 per cent in Tinsukia live in *bustees*. In Digboi the company provides a certain amount of piped water to the *bustee* areas outside its control. The workers who are not provided with accommodation are paid a house rent allowance of 10 per cent of their basic wages or Rs. 4 p. m. whichever is greater.

To meet the housing difficulties in Digboi the company laid out two "Settlement areas". These areas are divided into plots, either 50 ft. × 50 ft. or 50 ft. × 75 ft. which are leased to workmen at nominal rent of Re. 1 a year. The areas are provided by the company free with roads, lighting, piped water, drainage and sanitation. In order to enable employees to build their own houses on these plots advances equal to a year's house rent are given to them. Most of them are *kutcha* structures with bamboo and mud walls and thatched roof. Flush latrines are provided for most of the quarters. In the old quarters and in the settlement areas bucket latrines are still in use. The housing areas are situated close to the main buildings, refinery and workshops. Employees having to go long distance to work in the oil fields are taken and brought back by bus. A pure piped water supply from deep wells serves the whole area including the oil fields. Concrete washing places are provided in a factory and housing areas in numbers adequate for the adjacent population. There are 229 washing platforms in housing areas. Married quarters for other than the lowest grades have their individual latrines and washing places.

C. Silk Industry

The silk industry is concentrated in Bombay, West Bengal, Madras, Punjab, Kashmir, Mysore and Saurashtra. The total number of workers employed was 52,787 in September 1949. Housing facilities are generally not provided to the workers. Details of the meagre facilities provided are given below.

Madras

The Government Silk Filature has built four blocks of ten tenements each accommodating about 40 families. Majority of the workers live in their own huts in villages which are very small and insanitary. The filature encourages construction of huts by workers by the grant of land free of cost and the grant of an advance of Rs. 100. There is no housing scheme in the Kollegal filatures.

Amritsar

A survey showed that only 7 per cent of the employees were provided with housing by the employers. In one of the factories about 65 per cent of the workers were provided with housing, a married man being given two rooms and a courtyard and a single man, one room and a courtyard. The rooms are fairly well ventilated. Some employees wanted to build quarters but could not owing to non-availability of land and building materials. Owing to the Partition trouble the industry has got disorganised.

Kashmir

The Government Silk factories in Kashmir are the biggest employers engaging 41,476 workers. Neither of the two Government factories, nor the private factory in Srinagar has provided any housing for the labourers. The labourers usually live in their own houses in the surrounding villages, only a small proportion living in the city itself. The houses are mostly *kutcha* structures with mud walls, but fairly clean and quite well ventilated. The number of persons staying in a room of 100 sq. ft. is about 5.

Mysore

No housing is provided by the employers to workers employed in silk factories either in Bangalore or in Mysore. Many of the workers belonging to the depressed classes employed in the factory at Mysore live in an independent colony of their own. The housing conditions are fair. In most cases the houses belong to the workers themselves. Some, however, live in small huts and there is a considerable amount of congestion and insanitation.

D. Match Industry

Only 12 factories have provided some housing accommodation to their workers. The Western India Match Company at Madras has 54 quarters accommodating about 5.6 per cent of the workers.

The monthly rent charged per quarter is Rs. 5 inclusive of light and water charges. In this factory workers are paid a house rent allowance of Rs. 5 per month. Another factory in the Madras State provides housing free of rent for about 5 per cent of their workers. In the United State of Travancore and Cochin only one factory out of several provides free quarters to engine drivers and other mechanical staff. The Wimco unit in Bombay has housed thirty-five per cent of its workers in 520 tenements and two temporary sheds. The monthly rent per tenement is Rs. 5-4. Another factory located in Madhya Pradesh has provided free accommodation to 10 per cent of its labour. Non-local labour of Meerut Match Works (U. P.) is provided with housing free of charge. Each quarter in this concern consisted of one room having a verandah, kitchen, latrine and a courtyard. At Bareilly (U. P.) the Wimco has provided 46 single room and 33 double room quarters for about 6 per cent of its workers. The rents charged vary from Rs. 2 per month to Rs. 6 per month. In West Bengal two of the three factories have provided housing accommodation to the workers. One of them has accommodated 20 per cent of its workers without levying any charges for the accommodation. The second factory (Wimco unit in Calcutta) provided accommodation to only 8.8 per cent of its workers. The rent for each room was Rs. 4-8 per month. The Assam Match Company has only 49 quarters accommodating 4 per cent of its workers at a monthly rate of Rs. 1-11 per quarter. The factory in Orissa has some quarters consisting each of one room with verandah but the workers are stated to prefer to live in their own houses.

E. Potteries and Ceramic Industry

There are 63 factories in India out of which 13 are located in West Bengal. The rest of the industry is located in Bihar, Bombay, Delhi, Madras, Madhya Bharat (Gwalior), Madhya Pradesh, Mysore, Punjab and U. P. Housing accommodation has been provided by 29 units only. The percentage of workers provided with accommodation in different units varies from 1.5 to 100. While some of the units have built *kutcha* huts, others have provided *pucca* family quarters. The type of accommodation provided varies considerably. In most cases single-room quarters have been provided. With the exception of two units, no other unit charges rent from its employees. In one unit the rent charged varies from Rs. 2 to Rs. 8 per month depending upon the type of accommodation provided.

F. Bidi, Cigar and Cigarette Industry

No housing is provided by the employers anywhere. Except in Nagpur, the bidi workers usually have their own houses.

PART IV

Housing Requirements—Standards—Building Industry—Prefabrication—Finance—Co-operative Housing-Plans and Programme—Legislation, etc., etc.

CHAPTER LVII

HOUSING REQUIREMENTS

According to the 1941 census the number of houses in India was 76 millions—10 millions in towns and 66 millions in villages. The number of persons per house which was 4.9 in 1921, rose to 5 in 1931 and to 5.1 in 1941. It is not possible to indicate the average housing space available per person although the information regarding industrial cities shows the existence of overcrowding of an extreme type.

The basic data for estimating the extent of housing provided and the requirements is very inadequate. Referring to the impossibility of making an estimate of housing the Bhore Committee (1944) stated, " During the ten years from 1931 to 1941 the population of the country, as a whole, increased by 50 millions or about five millions annually. In the absence of reliable statistics, even a rough estimate of the number of the houses required for the country taking into consideration the rate of population growth, the death rate and other factors is almost impossible." There are also social changes which affect the housing problem. The disintegration of the joint family system, which will increase in tempo with industrialisation and a rise in the standard of living, may well result in demand for housing accommodation not less pressing than that caused by the growth of population. During the two decennial periods, 1921—31 and 1931—41, the net increases in houses were 4.8 and 8.5 millions while the corresponding increase in population was about 30 to 50 millions. The new houses built during the two periods were 16 per cent and 17 per cent of the respective annual increases in population.

From the data available, it is not possible even to know approximately as to the extent of new construction necessary for providing housing accommodation of a reasonable standard for the existing population. A definition of what that standard should be would influence the estimate of the number of new houses required because large percentage of existing houses would be condemned as unfit for human habitation by reasonable standard and another large percentage would require extensive improvement before they can reach the required standard.

Industrial Housing

The Labour Investigation Committee 1944-45, however, collected some data on housing provided in the particular industries surveyed by them. Figures of employment available in respect of workers in factories and the family budget enquiries conducted under the Cost of Living Index Scheme of the Government of India throw some light on the number of earners per family. With the above data an attempt has been made below to estimate roughly the housing requirements on a regional basis.

Factories*

The regional distribution of workers employed in different States during 1946 is given below:—

	Percentage.
Bengal	30.49
Bombay	29.53
Madras	11.33
U. P.	11.11
Bihar	6.00
Madhya Pradesh	4.36
Assam	2.61
Delhi	1.44
Others	3.13
	100.00

This shows that the factory population is concentrated mostly in four States, *viz.*, Bengal, Bombay, Madras and Uttar Pradesh and Bombay and Bengal account for 30 per cent each.

Although reliable statistics regarding the proportions of the workers properly housed are not available, an analysis of the housing conditions in different industries would indicate that on an average about 13.4 per cent of the workers have been provided with houses. This percentage varies from State to State as shown in the following table:

State.	Number of workers covered by the L. I. C. (Main industries.)	Numer of workers housed.	Percentage of workers housed.
Bombay	3,31,570	27,714	8.3
Madras	1,17,108	8,552	7.3
Bengal	3,52,016	66,711	19.0
U. P.	69,794	6,008	8.6
Delhi	15,108	1,600	10.6
Madhya Pradesh ..	30,619	2,620	18.6
Bihar	48,991	12,458	25.4
Orissa	1,276	588	46.1
Punjab	6,060	2,609	39.2
Assam	8,914	3,384	37.6
INDIA	9,82,056	1,32,224	13.4

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*The statistics given relate only to Factories coming under the Indian Factories Act, i. e. those employing 20 or more workers a day using power.

In spite of the limitations of the data we may broadly assume this percentage, *viz.*, 13.4, applicable to India as a whole. Accordingly, there are about two million workers for whom houses have to be provided. According to the Family Budget Enquiries recently conducted in different cities of India, there are more than one earner in a family. The following table gives an estimate of the number of families to be housed in the various States.

Estimate of Housing Requirements by States

Factories

	Factory employees (in lakhs.)	Percentage housed (estimated.)	Percentage unhoused.	Number unhoused (in lakhs)	Earners per family.	Estimated No. of houses to be constructed (in lakhs).	Percentage of total houses to be constructed.
Bombay	6.84	8.3	91.7	6.27	1.6	3.92	29.97
Madras	2.62	7.3	92.7	2.43	1.5	1.62	12.38
W. Bengal	6.66	19.0	91.0	5.39	1.5	3.59	27.45
U. P.	2.57	8.6	91.4	2.35	1.2	1.96	14.99
Delhi	0.33	10.6	89.4	.30	1.3	0.23	1.73
Madhya Pradesh	2.01	10.6	81.4	0.80	1.6	0.48	3.67
Bihar	1.39	25.4	74.6	1.04	1.5	0.56	4.96
Orissa	0.07	46.1	53.9	.04	1.7	.02	0.17
Punjab	0.40	39.2	60.8	.24	1.3	0.18	1.37
Assam	0.60	37.6	62.4	.37	1.3	0.28	2.14
Ajmer-Merwara	0.16	10.0	90.0	.14	1.2	0.12	.92
Bangalore and Coorg.	0.05	10.0	90.0	.05	1.5	0.03	.25
INDIA	22.70	13.4	86.6	19.44	1.5	13.08	100.0

Column 1. Latest figures for factory workers, (I. L. G. February 1948) for Dominion of India are only included.

2. Percentage housed are estimated from the various L. I. C. Reports.

3. Earners in families are averages for each State.

Thus 13.8 lakhs of houses are required to be built for factory labour. If this is to be achieved in ten years, about 1,30,000 houses will have to be constructed every year. This estimate does not take into account the potential rate of growth of factory labour during this period which largely depends upon the pace of industrialisation in the country. In addition to the factory workers, we have about 9.9 lakh workers in the Plantations and 2.4 lakh workers in Docks, Ports and Transport, excluding Railways. In the previous figures, the percentage of workers housed has been given to be 13.4. Another estimate places the figures only at 4 per cent. Even if the figure were taken to be about 10 per cent, we require houses for about 9 lakh plantation workers and 2 lakh workers in Ports, Docks and Transport, excluding Railways, besides, of course,for 20 lakh factory workers, as already indicated

General Requirements

Adequate shelter against sun and rain and against the inclemencies of weather is yet another of the essential primary needs of human life. On the basis that a person should have about 3,000 cubic feet of fresh air per hour, the accommodation required would be about 100 square feet of house room per person. The quality of houses required, however, depends to a large extent on social traditions far more than on physical needs. " The house is not only a shelter from the weather and a place for preparing food and sleeping ; it is also a centre of a complicated social ritual." The figure we have taken is the minimum determined by physical needs alone.

If we are to provide 100 sq. ft. of house room per person, which is the minimum needed, the average house should have an area of at least 500 sq. ft. so that it can accommodate 5 persons. In order that housing may come up to the standard we have laid down, a fairly large proportion of the existing houses both in rural and urban areas should be rebuilt and substantial provision should also be made for new houses. It has been estimated that the total expenditure required for this would be about Rs. 1,500 crores. The maintenance charges, even at a modern estimate of 7½ per cent would come to over 100 crores per annum.

The Environmental Hygiene Committee, which reported in October, 1949, has however estimated that, apart from the influx of displaced persons, the normal urbanisation in the current decade would have increased the population to such an extent that housing accommodation would be required for 66 per cent of the population in the towns, while the increase of houses therein would only be 20 per cent. The Committee further states that, to maintain even the 1941 standards, new houses would be required for 9.2 million people, or about 1.84 million houses at a density of 5 persons per family. Apart from this, the 6 million displaced persons from Pakistan would require at least a million houses. The estimated total requirement would thus be 2.84 million houses. Assuming that the average cost of construction of a house would be Rs. 3,000—Rs. 4,000, the total cost of construction for the required number of houses would be over Rs. 10,000 million ($ 2,000 million). It may not be possible for the country to undertake an investment of this order, even if the housing programme were to be spread over, say, ten years. It would thus appear that the difficulties in providing adequate housing of a reasonable standard are economic, rather than social or technical. The whole problem would, therefore, have to be viewed against the economic background of the country.

CHAPTER LVIII

HOUSING—MODERN CONCEPTION

The economic and social significance of housing has been studied by American and Continental writers. We in India are far behind. The modern conception of housing is against the idea of creating a conglomeration of buildings erected without planning and often resulting in mere mechanical extension of existing urban centres. We may indicate what we mean by modern housing from a quotation from Catherine Bauer in the book " Modern Housing."

" The ideal has undoubtedly been the self-contained regional town, complete with assorted industries, and agricultural belt and full facilities for social life. This is the one way to carry the premises underlying modern housing and planning through to a really satisfactory conclusion. The building of completely new cities, of a size and extent limited in advance and located scientifically in respect of natural resources, manufacture and distribution, is the only way in which the use—standards embodied on a small scale in the best modern housing can be enlarged to include all of modern human environment."

The new outlook is tending towards the promotion of land development and housing as a co-ordinated process in order to assist the growth of community life, including employment, on a rationa basis. The housing problem should be approached from this point of view. The ideal to be realised is the provision of hygienic homes for the workers and of facilities for full community life.

Housing, or provision of shelter, must be regarded as one of the most important of the public utilities and social services—an indispensable necessity of life—which will have to be attended to as an integral and essential part of the National Plan. It includes a group of industries producing building materials.

Housing and town and village planning must be considered as being complementary to each other. Housing alone, just houses to live in, even of good standard are by no means enough. In addition we should have a good all-round frame-work for living, re creation, exercise, entertainment, public health facilities etc., all these must be taken into account of planning. Housing in its wider sense is concerned with the development of residential areas in such a manner as to provide for the people hygienic dwellings in pleasant and healthy surroundings, with facilities for recreational and social activities. Planning is concerned with the equitable distribution of the available land according to the various needs of the community, which include the provision for residential and industrial areas, space for broad thoroughfares, parks and gardens, and further development. Thus the planning of land distribution and the development of housing seek to achieve jointly the purpose of transforming the physical environment in order to create suitable conditions for healthful living.

In foreign countries a good deal of attention has been devoted to the problem of city and town planning as an important post-war measure, but in India this has received but scant attention. It is a blot on civilisation that a large majority of workers should be doomed to live in dirt, disease and squalor, darkening the sunshine of the world's health and prosperity by serving as a reservoir of diseases, plagues and epidemics.

The policy in the past of not planning for an organic development of the entire city or town and the absence of effective control over development have led to one or more of the following evils:—

(*a*) Inappropriate land use; as for example, commercial or industrial areas devoted to residential uses or *vice versa*.

(*b*) Marked discrepancy between the owner's ideas of the value of his property and its actual value for its appropriate use.

(*c*) People in higher and middle social and economic strata moving out to more open areas leaving only the poor in the area once occupied by them.

(*d*) Dilapidation and decay due to age, neglect, or faulty construction, resulting in the occupation of the property by persons of lower income groups.

(*e*) Overcrowding of land by its more intense use by the owner by successive building operations to realise a higher income on his property.

(*f*) In some cases, the fear of what the neighbours might do with their property, prevents the owner from carrying out desirable improvements.

(*g*) The liberal policy pursued by local authorities in providing greater facilities in outlying areas developed by them while neglecting the older urban areas.

(*h*) While some areas have degenerated into slums and can be easily recognised, others, which are in an incipient stage, cannot be so readily recognised.

The problem of industrial housing can be envisaged as consisting of three parts:—How to catch up with the arrears of house-building, how to prevent a recurrence of the evil by planning new constructions and how to demolish and replan worn out and unhealthy parts of the city. But a much more serious question presents itself: should there not be a limit to the growth of a city, its size depending upon that level at which its citizens can most beneficially satisfy their social and economic needs ? That will, of course, require regional economic planning and decentralisation of industries for controlling future industrial aggregations.

The first part of the problem, *viz.*, to rectify the errors of the past, is obviously by far the most complicated task. The gravity of the situation is aggravated by the fact that the housing conditions of the vast majority of even the existing industrial workers are deplorable by even the minimum standard of health and privacy. In no capitalistic country of world has this problem been completely solved. Nowhere do we find a complete elimination of slum areas.

To house the rapidly growing population of our cities we have to contemplate the provision of housing accommodation on a mass scale. New methods of mass construction of houses require to be especially studied by us. Both in the United States and Great Britain studies regarding new building technique are making progress.

Slum clearance is another important problem. Low standards of living and wages aggravate the situation while lack of large funds defies practical solution. It is often stated that slums can be removed by wholesale acquisition of these areas at great expense. A very convenient way out of the difficulty of high land values would be the application of the Land Alienation and Acquisition Act, for the construction of decent living quarters for working men. This question is seriously engaging the attention of the Government of India ever since the Hon'ble Prime Minister visited slums in Kanpur (February 1952).

The planning of the workers' habitation is a part of planned economic development. Soviet Russia and some other European countries like Sweden, Austria and Germany, have set example in this respect. Every worker is entitled to living space according to civilised standards. For India, the housing proposed by the National Planning Committee was 100 sq. ft. of living space *per capita*. The Committee further recommended a two-fold test ; (*a*) that the accommodation or room space avoids over-crowding, (*b*) there should be ample privacy and separation of sexes which alone can ensure happy and decent living. In most of the industrial countries housing policy holds an important place in the social activities of the State. In Western countries the State has adopted legislative measures to ameliorate housing conditions. Besides, U. S. A. and Great Britain, the Union of South Africa and Australia have made advances. Under the Housing Act of South Africa the Government helps the local authorities with advance of money at low interest rates for the construction of houses. Similarly the South Australian Act of 1936—39 ' empowered a Trust to purchase or lease land and to build low-cost houses thereon.' The Slum Reclamation and Housing Act, 1938, provides for the improvement of existing housing conditions, determination of minimum standards with which new houses must comply, reclamation of insanitary areas, provision of houses for persons of limited means, etc. Great improvement has taken place in Victoria as a result of this Act.

We may briefly indicate some recent developments in the Western countries in national housing programmes. Between the two World wars the provision of adequate housing for the people was recognised in most European countries as an urgent and important social problem. Governments accepted the view that " housing has become a public utility" and that " the right to live in a decent dwelling has taken its place in the national minima, the right to good and abundant water, to sanitation, to adequate fire and police protection, to the use of paved and lighted roads, to education, to a certain amount of medical care, and, in most European countries, to various forms of social insurance."

These national housing schemes have certain features, which include control by a public authority over housing standards and financial aid directed towards promoting the building of houses of the required quality and in sufficient numbers, and the maintenance of the scales of rent at reasonable levels. In order to ensure quality, some countries have organised " national agencies for establishing standards, for supplying information, education, plans and technical advice, and for conducting experiments in materials and methods."

Local authorities in the United Kingdom have been entrusted with the responsibility for working class housing by a series of Acts. Every local authority must review the housing needs of its area and submit to the Government proposals for the provision of new houses for its working class population. By the Housing (Financial Provision) Act, 1938, grants from the exchequer vary from $ 5-10-0 per house per annum for 40 years in respect of accommodation for the rehousing of persons displaced in pursuance of clearance and redevelopment operations to a graded payment ranging from $ 11 to $ 25 per flat per annum for the same period in the case of blocks of flats built on extensive sites. Housing for members of the agricultural population is subsidised to the extent of $ 10 per house per year for 40 years. Local authorities are required, as a general rule, to make contributions from their own funds on the basis of 50 per cent of the Government contributions although in respect of agricultural housing their contribution is $ 1 per home per annum for 40 years.

The improvement trusts and the municipal bodies, the employers and the workers all will have to work in collaboration to achieve the tasks of planned housing. Each body or organisation will have to pool its resources and energies and work under the direction of a Town Planning Authority. In this connection it is suggested that Cooperative housing societies comprising industrial workers should be organised. Details about the working of these societies have been given separately.

But planned housing will have to take into consideration not merely the provision of minimum floor space, ventilation, lighting, sanitation and privacy but also the zoning of construction into industrial, residential and business areas so as to achieve inter-movement between the three at the least effort and expense. The Government must, therefore, pass a Town Planning Act. The essentials of successful housing should also be noted in this connection. *Inter alia*, they include mass production of houses in order to reduce their costs to minimum, good designs for houses, good building materials so as to minimise their maintenance cost and finally provision for the ownership of the houses to pass on to their occupants after a regular payment of instalments. This scheme has been successfully implemented in Australia.

Along with these essentials, the urgent need of community services in housing and town planning must be stressed. Community buildings in the heart of the city will act as the focal point for the social and cultural life of the citizens. The planning of the social life is, therefore, a *sine qua non* of an all-round housing and town planning scheme. Improvement in respect of civic services must also go hand in hand with planned housing. In recent years, the public utility services have seriously deteriorated in our cities. The public health services have been over-strained. These services will have to be improved and co-ordinated lest the good effects of planned housing be nullified.

In all Western countries, construction of housing by local bodies and the State has been universally adopted and private enterprise virtually done away with. Great Britain has recently implemented big subsidised schemes of municipal housing and has prepared a comprehensive project of housing improvement for post-war planning. Similarly, Government subsidised low cost housing in New York represents today the largest public-financed housing programme in any single metropolitan area in the world. Full details are given separately. Our cities should also launch public housing schemes, the burden of which, according to Professor Radhakamal Mukherjee, should be met " through the increase of municipal taxation, subsidy from local government and contribution from the employers." Outside the cities and towns the improvement trusts sould be supplied with adequate finances by the Government either directly through a subsidy or loan or indirectly through the guarantee of debentures floated by the Trusts for planned housing development. What is wanted is the combination of Government, local bodies and big employers to execute a housing programme. The programme should include, besides directly undertaking building work, assistance in the form of loans and of subsidies, procurement and provision of land and building materials to public and private bodies undertaking to build.

Planned housing development represents one of the most helpful and beneficial items in any scheme of social security in India. To those who assert that India cannot afford to spend more money for industrial housing, there can be only one reply that she can no longer afford to delay such expenditure. The Government and the industrialists cannot in any case neglect this problem, without playing havoc with the health of the industrial workers. If we are to industrialise, we must do so on a sound basis. It would not do to perpetuate the inhuman living conditions of the masses of labour, while the city's industries are humming with activity. It is about time that, in our frantic call for industrial growth in India, we paused and looked back for a moment at the heritage we are losing by this lopsided development. It is about time that we made a drastic change in our values of life. Whilst we build up a new India, whilst we build up a new city, we must also try to improve the lot of those unfortunate souls who help in the building up of the nation.

CHAPTER LIX

HOUSING STANDARDS

Minimum standards of housing construction and environmental conditions are laid down in most housing laws and regulations for safe-guarding the physical, mental and social health of the community. Such standards are needed both in order to ensure that new construction complies with fundamental minimum requirements, and in order to provide a criterion for the selection of those existing houses which need to be repaired or replaced. The need is particularly evident in the case of the great urban agglomerations developed as a result of the industrial expansion and population increase of the past century. A recognition of this need has led in recent years to a number of attempts by official and other investigations to formulate the "basic principles of healthful housing" and to translate these principles into specific requirements and regulations. The magnitude of the building programmes now being planned in many countries makes the further investigation of this subject and the formulation of standards appropriate to different conditions a matter of special importance at the present time.

(*a*) Statement of Law and Practice

The 'housing problem' may be defined in general terms as the problem of achieving and maintaining an adequate minimum standard of housing for all groups of the population. The nature and the dimensions of the problem thus depend on what is regarded as an adequate minimum standard. For both the analysis of existing conditions and the framing of policy, the definition of housing standards is therefore of vital importance. Such a definition may be in general terms or it may take the form of detailed technical specifications which should be adopted by the owners or occupiers of existing houses or builders of new houses. The definition may include both standards of occupancy and standards of construction including specifications concerning both the structures and equipment of the house and its location and other relationship to its environment.

For the purposes of actual application and enforcement, specific definition is, of course, essential. Since, however, the specific requirements which need to be met in different climates and locations, and since what is regarded as an adequate standard of comfort or amenity, varies according to local custom and level of incomes, there is a wide range of variation both in the ways in which the specific requirements are defined in different national and local housing laws and regulations and in the standards or levels which these definitions represent. In the case of standards of occupancy, for example, the requirements concerning the minimum amount of space per person are expressed in terms merely of over-all cubic dimensions for the house as a whole, or of cubic space per occupant in any occupied room, or of minimum area of total floor space, sometimes of maximum number of persons per room of specified size, or of the maximum number or numbers, age and sex of persons per bedroom, and sometimes in terms of a combination of two or more of such factors. Because of these differences in methods of definition, few close comparisons which it is possible to make disclose that even between countries with broadly similar climatic conditions, cultural back-ground and income levels and indeed between different regions within a single country, there is considerable variation in the standards prescribed.

A similar range of variation exists in the case of the standards set for other major features of housing design, such as of sanitary and toilet facilities, ventilation, the relation of window size to floor area and the degree of protection to be afforded against the elements. Even greater variety is to be found in the thousands of local building codes and other regulations which govern the details of building construction including the principles of design, the types, quantities and qualities of material and equipment and the standards of workmanship.

It is thus impracticable to lay down any generally applicable specific standards. What, however, appears to be both practicable and useful is a statement in general terms of the broad principles which should underlie any specific definition of housing requirements.

Among the various studies which might be taken as a basis for the formulation of such a statement special reference may be made to the series of reports prepared by the Housing Commission of the Health Organisation of the League of Nations. The Commission reviewed the various problems connected with the hygiene of building and dwellings and of urban and rural planning and enunciated general principles relating to such matters as the construction of walls, partitions, floors, ceilings and roofs, the space required per person, window design, the orientation of houses and rooms, the equipment of the dwelling in relation to heating and artificial lighting and also ventilation, air cooling and air conditioning, water supply, sewage and garbage disposal.

The work of the League's Housing Commission was supplemented by that of National Housing Committee established in certain countries to co-operate with the Commission. Of particular interest is a comprehensive and detailed report on 'Basic Principles of Healthful Housing' prepared by the National Committee on the Hygiene of

Housing of the American Public Health Association. This Report enunciates thirty basic principles, with specific requirements and suggests methods for attainment of each. The principles and specific requirements are, the Report states, "based on fundamental biological requirements of human organism" and "are believed to be fundamental minima required for the promotion of physical, mental, and social health, essential in low-rent as well as high cost housing, on the farm as well as in the city dwelling." The principles are given below :—

(*i*) **Fundamental Physiological needs**

(1) Maintenance of thermal environment which will avoid undue heat loss from the human body.
(2) Maintenance of a thermal environment which will permit adequate heat loss from the human body.
(3) Provision of an atmosphere of reasonable chemical purity.
(4) Provision of adequate daylight illumination and avoidance of undue daylight glare.
(5) Provision for admission of direct sunlight.
(6) Provision of adequate artificial illumination and avoidance of glare.
(7) Provision against excessive noise.
(8) Provision of adequate space for exercise and for the play of children.
(9) Provision of adequate privacy for the individual.
(10) Provision of opportunities for normal family life.
(11) Provision of opportunities for normal community life.
(12) Provision of facilities which make possible the performance of the tasks of the household without undue physical and mental strain.
(13) Provision of facilities for maintenance of cleanliness of the dwelling and of the person.
(14) Provision of possibilities for aesthetic satisfaction in the home and its surroundings.
(15) Concordance with prevailing social standards of the local community.

(*ii*) **Protection against Contagion**

(16) Provision of a water supply of safe sanitary quality available to the dwelling.
(17) Protection of the water supply system against pollution within the dwelling.
(18) Provision of toilet facilities of such a character as to minimise the danger of transmitting disease.
(19) Protection against sewage contamination of the interior surfaces of the dwelling.
(20) Avoidance of insanitary conditions in the vicinity of the dwelling.

(21) Exclusion from the dwelling of vermin which may play a part in the transmission of disease.
(22) Provision of facilities for keeping milk and food undecomposed.

(*iii*) **Protection against accidents**

(23) Erection of the dwelling with such materials and methods of construction as to minimise danger of accidents due to collapse of any part of the structure.
(24) Provision of sufficient space in sleeping rooms to minimise the danger of contact infection.
(25) Control of condition likely to cause fires or to promote their spread.
(26) Provision of adequate facilities for escape in case of fire.
(27) Protection against danger of electrical shocks and burns.
(28) Protection against gas poisonings.
(29) Protection against falls and other mechanical injuries in the home.
(30) Protection of the neighbourhood against the hazards of automobile traffic.

The list of principles represents the most elaborate and precise formulation of its kind so far attempted. The Australian Commonwealth Housing Commission listed the following principles to which the design of a dwelling should conform :

(*a*) Adequate light and ventilation.
(*b*) Adequate sleeping accommodation to provide healthy conditions.
(*c*) Adequate living space so as to avoid the frictions which arise from over-crowding.
(*d*) An allotment of land for general use by the family.
(*e*) Adequate and well designed living space with modern equipment for all functions so as to reduce work and eliminate household drudgery and thus allow full social life to be enjoyed.

It will thus be observed that different countries have a different standard altogether. The main differences are due to the difference in climatic and sociological conditions, the mode of living and habits of people. Having stated the general standards let us now turn to Asia.

Standards in Asia

Asian concepts of housing are medieval, and no attention is paid to the natural needs of human life, so complex in pattern in the modern industrial age.

The one room tenements in cities and the hutments in rural areas, where human beings and animals are huddled together, are ideal neither for the functioning of human life, nor for the organisation of family life, nor the maintenance of health. Community centres can only function after standards of a minimum housing are laid down. The human habitation, in order of importance must provide for adequate and well laid out places for a bed room of at least 1,500 cubic feet for every two inhabitants, a kitchen, a dining room and a parlour for the family. Adequate and clean water supply, lighting, provision for the disposal of garbage, bathrooms, urinals and lavatories are imperative for each home.

The sanitation of the buildings and grounds require organisation and supervision. The community centre of social service should, therefore, provide scientific housing administration. This should be entrusted to specially trained and qualified social workers.

In India the housing standards generally vary from State to State if not from district to district, partly due to difference in the economic conditions but mainly due to the climatic environments, sociological circumstances, building traditions, topographical features and occupiers' profession. Therefore, all the minimum standards specified will not be valid for all places.

The broad conception of minimum standard should be based on consideration of sanitation, comfort, convenience, safety and social and national objective such as promotion of efficiency in labour and of human values. Some of these may have to be modified due to economic considerations.

Site

A healthy, adequate site in the proximity of parent industry with sufficient extent for future expansion is desirable.

Streets

The minimum width of the main road should be 60 ft. and that of internal road 30 ft. The construction should be strong and durable, provided with proper storm water drainage. The surface should be dust-proof wherever possible. The land under roads and lanes should be about 20 per cent of the whole or about 36 per cent of the building

Amenities

Sites for all the civic requirements such as those of medical relief, education, recreation, administration, shopping and the like should be provided to an extent of 25 per cent of the whole or nearly ½ of the area of residential sites which will be about 55 per cent of the whole.

Services

The plots should not be back to back but should have a back service lane of at least 15 ft. width. It shall carry as many services as possible, such as water supply, sewage, storm drainage, electricity and the like. There should be ample provision of portable water on the minimum basis of 40 gallons *per capita* for all purposes including municipal and domestic use. The sewage system should be separate from storm water and should be underground and water closets should be served by water carriage system. There shall be adequate provision for lighting of streets and food and cheap transportation services, such as bus, street car and railway.

House

The built up area shall not exceed 1/4 to 1/3 of the plot area: the marginal spaces whereof shall not be less than 15 ft.

The question of the standard of living was examined by the various Committees and Sub-Committees appointed from time to time and the views of some of the important Committees are given below:—

The Housing Sub-Committee of the National Planning Committee thought that the floor area including that of verandah should be at least 60 sq. ft. per adult, though the aim of the National Planning Committee was 100 sq. ft. The minimum height should be 9 ft. clear. The rooms should have at least an external wall abutting an open space; openings for light and ventilation being 1/7th of the floor area, excluding door area. There should be through ventilation. Staircases and passages and corridors to be of minimum width of 3 ft. and 4 ft. respectively, of fire proof construction with proper light and ventilation. Though detached houses may be preferable, semi-detached ones will in some cases be practical. In most of the cases, however, row-type structures would be necessary; this should not have more than 20 tenements distributed over two floors at the maximum. Multiple storeyed buildings should be adopted only where land cost was very high. The accommodation for a family should have a main room, 15′ × 10′ a kitchen 8′ × 6′, a verandah 9′ × 6½′, a bathroom 7′ × 3½′ and a W. C. 4′ × 3′.

About the material the Committee felt that the external walls and roofs should give protection from weather in all seasons. Floor should be as impervious as possible but such as would not induce cold and the like. Unglazed tiles, properly maintained mud floor, lime concrete and the like were suggested for the floor but it was felt that a detailed study to find out a suitable paving material was necessary.

Fixtures and Fitments depended on the mode of living of the occupant, climate and the like and would therefore vary from place to place. Indian workers like to have built in fixtures and fitments, unlike their comrades in foreign countries.

They also felt that care should be given to the sanitary requirements such as washing and cleaning arrangements, proper plumbing, hygiene storage, vermin prevention, fire protection, proper upkeep and the like.

The Health Survey and Development Committee laid down the following standard requirements as essential for the maintenance of health amongst the workers:—

" In our opinion the housing of the industrial population is primarily the responsibility of the Governments concerned. The following minimum standards of housing are, we consider, required for the health of the industrial worker and his family:

" (*i*) For a single man: a room 10 ft. × 12 ft. × 10 ft. and a verandah 8 ft. × 10 ft. For a group of such quarters there should be provided community kitchens, latrines and bathing places in accordance with standards to be prescribed by the Provincial Governments. Where common kitchens are not provided, provision should be made for *choolas* in the verandahs with suitable chimneys for the outlet of smoke. Where latrines and bathing places for common use are erected, they should be at a reasonable distance from the quarters, and if possible, connected by a covered way for protection during bad weather.

" (*ii*) For a family: for a married couple, two rooms 10 ft. × 12 ft. × 10 ft. with a verandah, kitchen, bathroom and latrine. For a family including grown up children the accommodation should be increased by at least one extra room of similar size.

" (*iii*) In regard to sanitary conveniences, we suggest that so far as possible, septic tank and soil distribution systems should be introduced so that the handling of nightsoil may be avoided."

The Industrial Housing Sub-Committee of the Standing Labour Committee observed as follows:—

" While not forgetting the economic conditions in this country, it is clear that in laying down a minimum standard of housing we must see that the standard does in fact ensure the provision of the essentials necessary for the maintenance of health and that it also provides conditions compatible with a decent standard of human existence. The most simple requirements for a reasonable, even if elementary, family life and the need to provide for the separation of the sexes, particularly in sleeping accommodation, make a two-room house the irreducible minimum. This standard is receiving widespread support all over the country today, but we must point that it should not be taken to represent the ultimate standard ; it is put forward here purely because it affords that improvement in the standard of health and living for the mass of our workers which is, in our view, an inescapable minimum needing immediate attainment in all new housing schemes."

They also said that a house to accommodate an industrial worker and his family should comprise at least 2 rooms, a kitchen with storage space for food and fuel, an independent bath room, a lavatory. verandahs, preferably both in front and at the back, and a courtyard in the case of single storey houses, and be provided with an adequate supply of water and where possible with water-borne sanitation.

The total floor area of the 2 rooms was prescribed at 240 sq. ft. exclusive of verandah, the height of at least 7 feet and the cubic capacity of 1,000 cft. The Committee also thought that the main rooms should not be one behind the other and should be provided with doors and windows.

The Madras Provincial Housing Committee recommended the following standards :—

Minimum living space—The minimum floor (carpet) space required for a dwelling house of six inmates should be 340 sq. ft. including verandahs and the mean floor area per adult 75 sq. ft. and 40 sq. ft. per child under ten years.

Minimum floor area of a living or bed room—The minimum floor area of a living or bed room should preferably be 120 sq. ft. but in no case should it be less than 80 sq. ft. and at least one room should not be less than 120 sq. ft., the height being 9 ft. and 10 ft. in the case of sloping and flat roof respectively. The minimum plinth level should be 18 inches above the level of the centre of the nearest street. Door would be of different sizes, but the height of the doors should be less than 6 ft. 3 inches, preferably not less than 6 ft. 9 inches for the main doors. The width should not be less than 3 feet for main doors.

In regard to the amenities to be provided for each house, the Committee recommended the following :—

(*i*) A built-in cup-board in each bed and living room.
(*ii*) Pegs for hanging clothes.
(*iii*) Shelves in the kitchen for keeping utensils and supplies.
(*iv*) A raised platform for fire place with a chimney to serve as smoke outlet.
(*v*) Adequate supply of pure water.

(*vi*) Compound wall or line fence.
(*vii*) Independent bath rooms, bath water being led away to underground drains or distributed over as large an area of land as possible.
(*viii*) Latrines fully sanitated and connected to underground drains or septic tanks and dispersion trenches.

The Mitra Committee recommended that the minimum accommodation in any railway house must be two rooms and a verandah with a total floor space of not less than 325 sq. ft. This would be exclusive of a kitchen, bathing place and storage accommodation. An additional room, however, was considered necessary in some cases with grown up children as otherwise separation of sexes is not possible.

Regarding the size of a living room, a dimension of 12 ft. × 10 ft. as the minimum was recommended. The height for a gable roof should be 12 feet at the centre and 9 feet at the eaves. For a flat roof the height should not be less than 11 feet. Minimum plinth level 18" above ground level was recommended.

The height of door should not be less than 6 feet 3 inches and should preferably be not less than 6 feet 9 inches for main doors. The width should not be less than 3 feet for main doors but may be 1 foot 9 inches for bathrooms. The kitchen should have an area of 60 sq. ft. The back verandah near the kitchen should not be less than 7 feet wide and 12 feet long.

CHAPTER LX

LAND FOR HOUSING.

A house consists of land as well as structure and land is the prerequisite for house building. In fact, the character of the house is influenced by the contour, amount and price of available land.

With the increase in density of population grow the difficulties in obtaining suitable land for housing. As communities grow and houses are built together, environment more and more determines the character and cost of the house as well as its future value. Towns and cities not only create problems of location and surroundings, but the need of providing suitable streets, sewers ; water and other improvements. The problems of urban areas are manifold, complex and intriguing. They affect urban families in many ways—where they live, how they live, where and how they work and what recreational facilities they may enjoy.

Availability of land

In Western countries much land is made available, (1) by the increased distances from the main centres of commercial and industrial activity within which land may be put to urban use, and (2) by the intensive utilisation of land possible within these wide limits.

In Western countries the change in emphasis has come about for four reasons ; (1) the greater accessibility of outlying land to commercial and industrial centres brought about by rapid transit lines, highways buses and private motor cars ; (2) reduction in large cities of the amount of land required for a given amount of building space made possible by the elevator ; (3) speculative over-development and the creation of surplus building sites in the belief that population growth would keep pace with technical possibilities ; and (4) failure to overcome the economic and social barriers that prevent the proper utilisation of land in the centres of cities.

As a result, there are numerous subdivided but unused sites on the outskirts of towns and cities. Vacant plots are scattered in so-called built-up sections, and idle or under improved sites fill the depreciated areas surrounding the centres of cities—districts once marked for the expansion of commercial, industrial, or high apartment use that now seems unlikely to occur. The most immediate effect is the freezing of intrinsically desirable land which builders might use with advantage to themselves, their customers and the community. In

India conditions are a bit different. Land is generally available except in big industrial towns like Bombay and Calcutta.

Effect of location on the availability of land

To be suitable for a housing development, a location must have certain characteristics, among which the following are especially important:—

1. It should be in the path of urban growth for the type and class of dwelling proposed.
2. The structures already standing should be in harmony with the proposed dwellings.
3. The site should be capable of preparation without undue expense for the class of dwelling proposed. It should be free from the danger of flood, subsidence and not exposed to health hazard caused by smoke, fog, chemical fumes. stagnant ponds or marshes, poor surface drainage, or excess dampness.
4. The location should be protected from inharmonious land uses by national barriers, zoning, protective covenants, or preferably all three.
5. It should be accessible at reasonable cost and time through customary means of transportation to schools, shopping centres, religious and recreational facilities and places of employment.
6. It should have streets and utilities suitable to the proposed development.
7. It should have some natural or created appeal as a residential neighbourhood, such as attractiveness of terrain, landscaping, layout of streets, and absence of noise, traffic hazards and other objectionable structures.

Cost of Land

Prices naturally influence the availability of land for housing. The drift towards the outlying sections of cities has been due to a search for land cheap enough to permit the building of apartments or single family dwellings at attractive prices.

The value of land is an abtruse and elusive concept. In good times the demands of optimistic bidders force prices beyond the real value of land as measured by the future earning power of the property. In depressions owners may sell their property at prices lower than probable earnings over a long period would justify. Moreover, there is no regular common market place for land, where, as with many commodities, prices and trends are revealed.

In a land like America and U. K. where populations are constantly shifting, where standards of living are fluctuating or advancing, where techniques of industry and business change with unprecedented rapidity, confusion in the physical pattern of communities and obsolescence of investment in real property are unavoidable. Indeed this obsolescence may become index of movement and progress. Such progress does not take place by a process of rational planning but by that pioneering spirit which destroys, in the interest of today, what society may be needing tomorrow. In India this stage is yet far off, though there is a similar tendency in big towns.

The value of raw land for housing purposes is derived from its natural character as a suitable building site. Where land presents such problems as drainage, difficulties in the construction of basements and cellars owing to rock formation or seepage soft ground in need of piling before construction, slopes making building or access costly, values are of necessity lower. Where land is of such quality as to involve no extra effort or cost, however, and where use is not hampered by physical conditions, values are not affected.

It is not possible to separate the land problem as it affects housing from the larger problems of community space, its distribution and use. Indeed no parcel of land can be evaluated either in economic or social terms without taking into account the relation it bears to its place in the community as one of particular importance to its present as well as future use. In fact aside from agricultural value, land has no value except that which can be derived from its relation to the community, not alone as a stable commodity, but also as an entity changing in time and space at particular rates of speed. Thus land values must be based upon a four dimensional formula, in which space, position in the community, time, and rate of charge must be taken into account.

Land economics and urban living are inseparable. Land values are part of the total residential value of the city or town in which they are situated, and their uses are a direct result of the sum total of the economic and social requirements of the whole community. This is not always a condition which may be summed up in quantitative or qualitative values, because our cities and towns are made up, not of a synchronized set of factors, but of a series of layers of conditions and demands which are superimposed upon the community over a considerable period of time, during which fluctuations in the rate of development, improvement of standards and economic disturbances have been taking place. In addition, the accumulation of legal restrictions and controls over land uses, after some of the more desirable lands have been developed, makes a categorical evaluation of building sites in relation to the community difficult, if not impossible.

In order to understand the relation that land bears to the location, distribution and cost of housing, it is important to analyse rather minutely the factors which make certain lands suitable for housing and the bases upon which values or costs are established.

Broadly speaking, the suitability of land for housing purposes depends upon the following factors :—

1. National character of raw land as building site.
2. Its geographic relation to the community.
3. Its quantitative relation to present and future needs.
4. Its stability and future possibilities.
5. Its place in the evolving community.
6. Its exposure to outer influences.
7. Available community services.
8. Its obligations as present and future investment.
9. Its capacity for economic development.
10. The relation of units of ownership to use.
11. Degree of intensity and variety of development possible.
12. Margin of profit to be derived from additional investment and management.
13. Social controls of use and their relation to stability of investment and possibility for speculation.

CHAPTER LXI

THE HOUSE AS AN INDUSTRIAL PRODUCT.

The nature of the product itself is one of the important factors that determine the cost of producing an article. The house, reduced to its simplest forms, is a large, ponderous, complex, and expensive product. Climatic conditions, factors as well as wide variations in personal tastes have a profound bearing on the character of the house building industry.

Physical Characteristics of the dwelling

The house which is the centre of family life must provide space for cooking and eating, living and sleeping and frequently the rearing of children. It should be so arranged as to facilitate these activities, foster harmonious family life and minister to the privacy and integrity of the individual. The house should not be too large or complex, it should create an atmosphere of comfort and quiet, be fresh and cheerful, commodious within and have ample surrounding space.

House building is the only industry which translates so many ideals into material terms. In such terms, the house is a fixed, durable enclosure, providing protection from the elements and including the spaces and facilities necessary for carrying on family life. Even a one-room cottage or cabin is a bulky commodity with a complex function. The modern dwelling is often as intricate as the functions it serves, in its type and layout, the materials of which it is made, and the ways of assembling them.

Fixed Location

Unlike other consumer products, fixity of location is the primary quality of the house. It is not only identified with a plot of ground, but, especially in the city, depends upon utilities, such as streets, walks, water and sewer pipes, gas mains, and electric cables as well as such community facilities as schools, stores, temples, fire and police protection and hospitals.

This situation would not be much different if dwellings were ready demountable, or if, like trailers, they remained on wheels. No matter how short its stay in a locality, a mobile or semi-mobile dwelling must have a definite site, be dependent upon the services provided for that site, and subject to the limitations, charges and conditions prescribed for the use of the site. Consequently, all aspects of the urban economy associated with land values, taxes, changing uses, become part of the housing picture and directly or indirectly affect dwelling costs.

A builder must know that fixity of site subjects the house to numerous local regulations covering land use, construction, character of occupancy and the like, as well as to equally numerous customs and practices. Often they are so complicated that only long experience provides that necessary knowledge. Consequently the the non-local builder is placed at a disadvantage, and building organisations that might operate over a wide territory are discouraged. Except in the largest and most active areas, the creation of house-building companies large enough to use industrialised methods is handicapped. Fixed location has thus tended to keep the building industry a local as well as a costly business.

Bulk constitutes a major problem in the housing industry. Because it must be adapted to a particular site, the mass and weight of a house have made it difficult to produce at a distance. Moreover, since in their unassembled state the materials of a house are both heavy and cumbersome, it has been customary, in order to reduce transportation costs, to make them in as small and compact forms as possible.

Complexity

A house is a complex product and its construction is as tied to tradition as to the land on which it rests. Traditional forms require a tedious installation of numerous parts and materials at the site ; as such it is exceedingly complex, varied in type and arrangements and in the number and relationship of parts.

The interior of the house must be arranged to provide for its numerous functions. Space must be found for cooking, eating, recreation and sleeping. Adequate arrangements for sanitary facilities should also be provided. In Western countries in addition to kitchen, bedrooms and bath, there may be a living room, library, nursery, game room, music room, workshop and the like. Storage space is essential: a laundry room and garage are frequently required and space for the heating plant, water heater and fuel are almost universal requirements.

In the house building industry, individual preference is more counted in the selection and arrangement of dwelling space. Architects and contract builders thrive on the heterogeneity of housing design. The result is to entrench the custom-built tradition in house construction and to discourage the introduction of repetitive methods that have led to the reduction of costs in other fields.

Variety of Structural Methods

The multitude of materials and parts that go into a house may be assembled in many ways. Brick, wood, concrete, steel, all dictate corresponding structural systems, and for every such material there is a choice of assembly methods. Local building practices play an important part in the building industry. Regions and towns develop customary ways of doing things and sometimes these practices are frozen in building codes. Tradition, law and the accustomed procedures of workmen tend to combat the introduction of new methods.

Variety of Types

The numerous materials, parts, equipment and methods of house construction are, of course, not combined in a standard product. The astronomical number of possible combinations is further increased by the variety of dwelling types. Another marked effect of the durability of buildings is in the perpetuation of the established land pattern. Buildings are rarely demolished and then usually one by one. The vacated lots often restrict new construction to the types of building designed for the original lot pattern. The persistence of old buildings, often long beyond the possibility of obtaining an economic return, helps to force new developments into fresh, outlying areas. Durability thus tends to limit the manner in which the builder may use land for new houses as well as the amount and location of available acreage.

The maintenance and alteration of the huge stock of continually deteriorating dwellings is a large and special phase of the house building industry. Since the house is a complicated structure, repairs are complex and difficult. Few houses are so built as to be easily repaired and a tremendous number of their vulnerable parts are hidden and sealed. The complicated nature of the house thus makes its maintenance unnecessarily costly, forcing the industry to carry a huge supply of parts, for which there may be an infrequent and incalculable demand.

Costs

No commodity required by the average consumer is so large, so complex, or lasts so long as a house. If purchased, it is the most expensive article acquired by the average family. If rented, the monthly bill is larger for those in the lower half of the income scale than any recurring expenditure except food.

Housing costs may be viewed from three angles: (1) the construction of the house, (2) its acquisition by the user or investor and (3) operation and maintenance of dwellings. All three are inter-related. Use of inferior materials or un-skilled workmanship may lower production costs but will raise maintenance costs. On the other hand, in order to assure long life and low maintenance, production costs may be too high for most prospective buyers. Again, the mortgage interest rate and terms of repayment greatly affect the kind and quality of houses that may be produced. Lowering the interest rate and extending the life of the mortgage may make the house easier to acquire, but not less expensive.

Production and Operating costs

Part of the production cost problem is obviously one of how long the product must last and how much may be spent on it during its use period. Good materials and careful workmanship simplify the problem of maintenance as well as operation. Attempts are often made to show that lower operating and maintenance costs more than offset a substantially higher original cost. Such assertions may be true in specific cases and if so, the additional initial cost would be repaid out of maintenance. But the components of a house are so diverse in nature and durability that a perfect balancing of the elements of costs is hardly possible. Moreover, the variety among houses is so great that averages, even if obtainable, would have little meaning. The cost of maintenance and operation depends partly upon the amount of wear to which the dwelling is subjected by its occupants and the weather, and the kind of upkeep it receives. The problem of reducing cost can be solved by changing the nature of the house itself, including its materials and modifying the processes of assembly. The house develops slowly, piecemeal and erratically. Nevertheless, it does alter ; and in some respects, fairly radically. The main task is to produce more houses for low income groups.

Materials and Structure

Even though we reduce the bulk, simplify the arrangement and concentrate on fewer types the house remains an agglomeration of a vast number of parts and materials. The complexities of the house, however, often result from the grafting of innovations upon old forms. The result is an age-long accumulation of elements with a minimum of integration and simplification. In European countries and U. S. A. competition among manufacturers has increased the number of materials in common use, often with little regard to their suitability, or concern for building and maintenance costs. So far, the form of the house has been considered without definite relation to methods of production. The search for lower costs, therefore, leads to an examination of the building industry, an industry whose organisation has been influenced by the character of the house. By taking advantage of the possible modifications of the structure, new developments may also become possible.

CHAPTER LXII

THE IRREGULARITY AND INADEQUACY OF BUILDING ACTIVITY

The housing activity depends on many factors such as demand for repairs, alterations and replacements to maintain the existing stock of houses, demand for additional housing arising from increase of population. Even where building costs and the total demand for housing remain constant, the demand for repairs, alterations and replacements could vary from year to year since existing houses would be of varying ages and in varying states of repairs. Houses are extremely durable assets. The additional demand for building activity arising out of the necessity of increasing the stock of houses depends on increases in the number of families living in particular localities and on increases in the amount families are prepared to spend on housing.

In fact, however, the average annual increase in total demand for houses is extremely small in relation to total demand perhaps as low as 1.5 per cent. Though changes in the total demand for houses are small, fluctuations in these changes and therefore in the demand for additional houses, are likely to be large.

Wars also exert much influence on the demand for houses. Births, marriage and death rates, the demographic factors so important to the demand for houses, are distorted from their normal progress and there are often large shifts in the location of population. Moreover, the effects of wars, booms and depressions on the demographic factors appear not only immediately but also in subsequent generations.

The demand for housing activity is likely to be irregular. The house which is the product of building activity lasts for many years. Its purchase represents a substantial capital expenditure involving either the foregoing of annual interest or the making of instalment payments over many years. Decision to buy houses in any one year is made not with reference to the current ascertainable expenditure which families are prepared to make on housing but to the expenditure which the families may be expected to be able to make during the life of the house.

The supply of houses is elastic in depression and inelastic in boom. During the time of depression the reduced demand can be met by a supply which in effect expands without any building activity, but while the employment and income rises, demand is increased suddenly. The war and post-war period provide dramatic illustrations of this movement. Due to the stoppage of building activity during the war period most people have to manage with some sort of accommodation, but with the cessation of hostilities and the resumption of building activity, a tremendous pressure for new houses and for long delayed repairs, alterations and demolitions develops. Secondly, the factors determining the cost of new houses have important effects on the irregularity of activity in the building industry. Costs of houses rise easily in a boom and fairly soon choke off expanding demand, they fall slowly in a depression and make less effective whatever demand may be available. Another severe limiting factor on the building industry is the nature of the productive resources it needs. In a boom the industry can expand its resources but slowly, while during depression it is left with large number of workers and productive capacity which cannot be utilised. Factors on the supply side have somewhat conflicting effects on the irregularity of building activity. The elasticity upwards of costs tends to cut off the peaks of booms. The inelasticity upwards of production resources tends to prolong the boom by restricting the amount that can be supplied in any period. The tendency on the part of commercial banks to finance housing schemes which is developing in some countries may also affect the irregularity of building activity.

The demand for houses is unstable and the way in which this demand is translated into a demand for building activity results in an enormous magnification of that instability. A general depression is likely to affect expectations of the future and these are of great importance in determining building activity. Similarly a revival is likely to have a stimulating effect on building activity. There are special determinates of building activity which operate independently of the general level of activity. Demographic factors may bring about an increase in the number of families, despite the off-setting effects of a depression, shifts in location of industry and new developments in transport may occur in a depression and require building activity. Investment in housing may become more attractive in a depression than industrial investment. Income from housing investment depends not on the vagaries of a particular industry but on the ability of tenants to pay rent.

Extensive investigations into the building cycle in the United States have established that every second business depression tends to coincide with a building depression and therefore to be particularly severe. Perhaps the most interesting illustration of this inter-relationship is the building boom, which developed in the U. K. during the thirties and which is claimed to have been a main factor responsible for leading that economy out of depression. Firstly, although the depression was severe it largely affected employment to the lower income groups. Secondly, the housing shortage precipitated by the first World war having been acute, there was an underlying pressure for continued building activity and an upward pressure on prices and rents. Thirdly, there was a substantial change in the location of population due to the shift of location of industries. On the supply side too, there were substantial contributing factors such as fall in prices, expansion of labour force and fall in mortgage rate of interest. This experience of the U. K. demonstrates vividly how a combination of conditions can lead to a building boom first arising in the midst of a depression and finally helping to lead the whole economy out of the depression.

The factors concerning the irregularity of housing activity also contribute to the inadequacy of housing activity. The housing industry besides being fraught with uncertainty and risk involves high cost, nor is housing market perfect. Prices of houses and of land rise easily and fall slowly, sustained largely by the widespread conventional belief in the value of houses as an investment.

CHAPTER LXIII

HOUSING AND EMPLOYMENT

The most dynamic problem of the present-day world is unemployment. This is a feature which has been brought into existence by the industrial revolution of the eighteenth century. The avowed policy of each State is to secure full employment and to banish unemployment from its economic life. Housing programmes have figured prominently as one of the means of achieving full employment, an objective which has been adopted by most countries as a central plank in their social and economic programmes.

Employment is determined by the level and composition of total effective demand which is classified into the following subdivisions :—

Private consumption	Purchases of home-produced consumer goods and services by private individual
Public consumption	Purchases of home-produced final consumer goods and services (particularly the services of public authorities.)
Private investment	Purchases of home-produced capital goods by private individuals or firms.
Public investment	Purchases of home-produced capital goods by public authorities.
Exports	Purchases of goods and services by buyers in other countries.

The employment problem would be simply of organisation and enterprise, to get resources into those industries on whose products the income of the full employed community would be spent. But extra income is not always spent by its recipients on domestically produced goods and services. Some of it is paid to Government in taxes, some of it is spent on imported goods, creating a demand for labour in other countries and some of it is saved which my be termed as 'unspent income.' Full employment can be maintained only if the unspent income is completely offset by the demand for goods and services other than of private consumption, that is, by public spending, by private investment and by the demand for exports. The volume of Government expenditure is determined by social policy, costs of administration and various other influences and pressures such as the popular demand for health and medical services, for libraries and roads, the size of the population and its geographical distribution. Private investment is determined by enterpreneurs' expectations of the future returns which could be earned on investment undertaken now, balanced against the cost to them of the investment. Finally, exports depend on the demand from abroad for a country's products.

In order to discharge the responsibility for maintaining full employment the problem of Government policy is to ensure that the section of income which is not exerting a demand for home-produced goods and services is fully offset by the Government's own spending, by private investment and by exports which do exert a demand for goods and services and which must be maintained in order to maintain full employment.

Housing activity is important not only in determining the level of housing standards but also in determining the general level of employment. It is generally expected that housing will have relatively greater part in employment policy in higher industrialised economics than in less developed economics. In all countries seeking both full employment and an improvement in social welfare, housing is coming to be regarded as the most important single field for public action.

In India there ought to be no difficulty in relating house-building to the level of employment. House building for the middle class does not require highly skilled workers and there is almost always a surplus of unskilled and semi-skilled unemployed labour throughout the country. This question may assume some importance if special types of houses such as prefabs or houses with modern designs are aimed at. For such houses trained labour would be necessary and there may be difficulties. The problems may also present some difficulties if it were decided to concentrate building activities in the already over-busy industrial cities. Questions of competitive demand for labour may then arise. Except for these two instances, labour supply may not cause any serious difficulty.

CHAPTER LXIV

BUILDING INDUSTRY

(Materials, Labour and other aspects)

The Health Survey and Development Committee of the Government of India have observed, " Housing should be regarded as one of the major problems which should be attacked with all the resources which the Government can mobilize and should be given high priority." The increase in population and the cessation of house building activity during the war period have resulted in an acute shortage of house accommodation. It is not possible for private enterprise to relieve the shortage in a short time. Details of action taken by State Governments to tackle this important problem have been given separately.

The question of organisation of labour and material trade in connection with building industry is very important. The number of labourers on constructional works and allied industries is next only to that in agriculture. Unfortunately, statistics regarding imports, indigenous manufacture, raw material and labour employed in such industries are not easy to obtain.

Many articles are required in connection with the building industries. Important are bricks, cement, tiles, asbestos, chemicals, paints and varnishes, glass, iron and iron products such as wire fencing, wire ropes, wire gauze, iron sheets, steel pipes, tool, wrought iron pipes, and drawn tubes—water fittings, timber, metalware, brassware, electrical wires, glass, pipes, tools, etc.

The materials vary from one locality to another. While clay burnt bricks are generally used in the plains, laterite stones are used on the west coast and granite stones are used in the central districts. Mud plastering is prevalent in the countryside and lime or cement plastering is used in urban areas. The availability and the cost of these local materials are determined by the local conditions. Other materials particularly iron and steel, timber and cement are important articles of countrywide and inter-national trade. It is necessary to rationalise the building methods by the adoption of the necessary technical reforms in the production of building materials as well as in their utilisation. The Bhore Committee has drawn attention to the survey made by the Ministry of Works in the United Kingdom and of the American practice in design and construction of building materials with a view to secure—(1) increased speed in output, (2) reduced building costs, (3) improved standards of equipment and finishing, and (4) improved conditions for labour and recommended an enquiry on similar lines in this country.

In the organisation of the industry the followng points need consideration :—

(*i*) What items should be produced on a mass scale
(*ii*) What articles should be manufactured on a factory scale ?
(*iii*) What should be the arrangement for marketing and distribution ?
(*iv*) How much mechanisation of the carrying trade or transportation is advisable ?
(*v*) What means should be adopted for encouraging the local production of those articles that will have to be left out of mass or factory scale production ?

The building materials are classified as (1) vital to the country such as blasting materials and chemicals, (*ii*) necessary for making the country self-sufficient such as brushes, roofing tiles, furniture, brassware, glass, iron products, survey and drawing instruments, electric and water fitting, water works appliances, (*iii*) amenable to large scale treatment such as glass tools, instruments, electric, water fitting, (*iv*) appropriate for nationalised industry such as brushes, tiles, furniture, small drawing glass, engine, etc., (*v*) suitable for industries that can be developed on the basis of assemblage and cottage industries ; and (*vi*) articles that can be manufactured immediately on industrial basis.

For a big housing programme a huge quantity of these materials is required. The demand on building material at present is very fluctuating. It is, however, to be noted that for almost all the materials for housing, the supply in India is potentially adequate. The National Planning Committee suggested nationalisation of industries like iron, cement, water, sewage and other pipes These industries depend upon the natural resources of the nation such as quarry, lime stone, clay deposits, coal, forest produce, ores and the like. The consumption of products of these factories is spread over all parts of the country. These products are absolutely essential for the housing schemes. A sudden demand on these industries will tempt them to increase the prices. Steps should, therefore, be taken to ensure a steady and cheap supply. The Committee thought that it should not be difficult to manufacture these articles or their substitutes in India and ensure national self-sufficiency in the building industry. Regarding tools and plant required in construction, India is woefully deficient. If locomotives can be manufactured in India, there need not be any difficulty in manufacturing the mechanical plants. To facilitate manufacture and marketing, it will be necessary to standardise the requirements and reduce the number of variations. The present is the most opportune time to establish factories for the said articles and plants. In addition to the industrialising effort, steps will have to be taken for improving and encouraging indigenous methods *e.g.*, though brick and pottery should be very much advanced industries in India, in view of the fine alluvial clay being available in greater part of the country, crude and wasteful methods are followed which require replacement by scientific and systematic methods so as to obtain reduction in quantity of fuel and to secure maximum quantity and strength.

Bricks

There will be a demand for large quantities of bricks for some years to come. The brick kiln owners are at present unable to increase their production or to offer bricks at reasonable prices owing to shortage of fuel and high cost of labour. The manufacture of bricks and tiles commonly known as country bricks and tiles is a seasonal industry. They are manufactured in the non-rainy months in crude way and burnt with considerable waste of fuel. About a third of the bricks are either unburnt, underburnt or overburnt. Brick manufacture, therefore, is capable of improvement in two ways, *i.e.*, in the method of moulding and in the process of burning. Moulding can be improved by proper mixing and grinding and by drying the bricks under cover. The process of burning can be improved by loading the bricks in a continuous kiln and using agricultural wastes such as paddy husk, groundnut husk, coal dust or slack coal as fuel. With the quantity of fuel now used, our brick production can be increased by two and a half times if 'Continuous Kiln' system is adopted. The State Governments can start a few brick kilns at suitable centres in each State for demonstration purposes.

The brick kilns require to be equipped with labour saving appliances such as diggers, conveyors, pugmills and brick moulding machines, both of the pressure or non-pressure type, and equipment to convey the moulded bricks to stacks, loading and unloading kilns, sorting and stacking and technical help to develop them and apply them so as to save labour and deliver them at site of work. There is no need to depend entirely on bricks for the construction of houses. In olden days houses were built of stone. In places where stone quarries are available use of stone should be encouraged.

Tiles

This is akin to brick industry. In Madras a large tile industry has grown on the west coast. More than 50 big factories are engaged in the manufacture of tiles using clay from local silt deposits. There has been fairly large export trade in Malabar and Mangalore tiles extending at one time up to Australia and Singapore. It is estiated that the value of annual out-turn before the war exceeded

Rs. 20 lakhs. An investigation might be undertaken to find out the existence of such silt deposits so that similar factories might be started elsewhere in Madras and in other States.

Lime and Sand

Lime and sand are generally available in plenty in most of the States.

Timber

The supplies of timber for domestic and agricultural requirements should be improved. Standardised doors and windows can be made and offered for sale. Though timber is necessary for house construction, there is a tendency to demand only the known timbers like teak, *kail* and jack.Palmyra wood which was used for rafters and pillars has now gone out of use. Palmyra grows extensively in many districts in Madras.Mature trees yield very durable timber which does not decay for a long period. Palmyra timber can be used for cheaper construction after treatment. Similarly *salai* and other timbers found in Madhya Pradesh can be used.

Iron and Steel

The demand for iron and steel for constructional purposes has increased owing to various causes, chief of them being the use of cement concrete. In the old type of construction very little iron and steel was used. The materials that were being largely used in the construction of houses prior to the second World war were steel and cement. Our building engineers and designers have got so accustomed to their use that in the absence of such supplies they feel helpless to construct houses. Efforts are now being made to use local materials. Under present conditions a small house will cost not less than Rs. 4,000 to Rs. 5,000. The high cost makes it impossible for a great majority of the middle classes to own their houses.

Labour

The organisation of labour connected with building trade is comparatively less difficult because of the fact that the building traditions are age-old. In most of the mofussil towns and much more in rural areas, the hereditary artisan is the chief technician. Unfortunately, their knowledge has become more or less fossilised and stagnation has occurred. Education with professional bias is urgenly necessary in such a way as to broaden the outlook of such workmen without losing inspiration from their traditional knowledge. The potentiality of labour for building trade is very great so as to give equally efficient and skilled workers. Labour in the building industry is, however, unorganised. The building trade is one of those trades where duc to scattered nature and non-amenability to complete mechanisation as in factory, most of the processes require dexterity of hand and limbs, rather than a great deal of theoretical knowledge. Barring some big industrial cities all the urban and rural areas will have to depend upon manual labour. For this reason, systematic apprenticeship and organised recruitment shall have to be codified by the housing and planning boards for all types of skilled and unskilled labour. The questions such as standard of wages, formation of trade unions and the like are so interlinked with other questions of general urban and rural labour that this will have to be left to those in charge of labour questions in general. The question of output, however, stands on a different footing. There is a general impression that the output is decreasing with the lapse of time. Cases of diminution of output have been known to be connected with poverty and general lowness of vitality, but not absolutely with want of skill. On the other hand, decrease in the sense of duty appears to be a growing contributory cause to the decrease in the output. Another cause is constant fear of unemployment. The worker must be assured almost permanent employment which will go to increase his vitality and contentment and consequently his output. With national economy planned and a big housing programme, this should not be difficult to achieve.

Land for Building

All vacant areas cannot be considered suitable for the development of housing. Building land should be sufficiently high in level to promote proper drainage and to prevent water stagnation. Its soil should be suitable for construction of dwelling houses and to sustain plant growth. Housing area should not be far away from centres of work, as the cost of transport added to the cost of housing would reduce the standard of living of the residents. It should be possible to provide for the housing area, such essential services as good water supply, proper drainage and sanitation, street lighting, etc. The area should be such as not to promote development in a ribbon fashion along highways, railway lines, river banks, etc. It should be of adequate size to form a self contained regional town, complete with a variety of industries and agricultural belts and full facilities for social life. Even if all these conditions are satisfied it is not desirable that every such available land should be built upon. It is necessary in any planning that a certain proportion should be reserved for future development and a substantial portion reserved as parks, lawns and open spaces to serve as the ' lungs ' of the populated areas.

Though large extents of land suitable for building are available, considerable difficulty is experienced in acquiring them for building and their cost also is prohibitive. The obstacles which stand in the way of utilising these lands need to be removed and the cost brought down to a reasonable level by legislation, if necessary. In respect of some classes of land, like temple lands, it may be advantageous if they are taken on lease for long terms (say 99 years) instead of purchasing

CHAPTER LXV

MEASURES TO REDUCE HOUSING COSTS

In most countries a substantial proportion of the population cannot afford the present cost of housing on the minimum standards recommended by official commissions of enquiry and other authorities. Means must, therefore, be sought to bridge the gap between present housing cost and rent paying capacity. Two main approaches are possible ; measures may be taken to improve the organisation and efficiency of the building industry and thus reduce the cost of housing and financial assistance may be given or public housing programmes undertaken to provide adequate housing at less than its full commercial cost to those members of the lowest income group who are unable to afford that cost.

The two approaches are closely related. The more building costs can be reduced, the less will be the need for financial assistance or public housing. Rent paying capacity is determined chiefly by income and size of family.

There are certain common characteristics which make for high costs of production. In the first place, the level of activity in the industry is subject to wide fluctuations. Employment is consequently highly irregular and labour costs are higher than they would be if steady employment were assured.

Secondly, the actual building is done chiefly by small scale local enterprises—a fact which limits efficiency and accentuates still further the instability of employment in the industry. The construction work is mainly done through contractors. In some cases each house is built as a separate job, most or all of the workers being discharged when it is completed and a new group collected when another building contract is secured. Little has been done to apply modern methods of scientific management. Modern engineering science has seldom been applied to the production of houses especially in India. Many persons construct their own houses employing some *mistries* and workers only.

Thirdly the primary contractor is loosely associated with a number of other enterprises which make some contribution to the production process. Usually he farms out to sub-contractors such work as the installation of plumbing and electrical fixtures. He secures his materials and equipment in small quantities from a number of wholesalers, jobbers and retailers.

Fourthly most of the work of building houses is done on the site and the house itself is built to individual specifications designed to take account of the peculiarities of the site, the special requirements of the local building code and the preference of the individual occupier.

There is little standardisation of materials or dimensions. Room heights, wall thicknesses, window and door openings, room lengths and widths vary sometimes by fractions of an inch. The wide variation in sizes and use of fractional dimensions does not add to the individuality of houses very seriously but requires the carrying of large inventories, results in confusion and seriously interferes with the introduction of mass production methods in the building industry.

Some progress towards standardisation has been made in recent decades in some countries, but as compared with other great industries the house building industry is still backward in this respect. Because of the limited extent to which standardisation has been carried, and because of the low capitalisation of building enterprises associated with their small size, mechanisation and mass production methods have found little application in house buildings.

Thus the problem of housing costs is one which cannot be ignored in the formulation of housing policy ; and by illustrating the complexity of the problem the above out-line suggests the desirability of a many-sided attack upon it. The following possible lines of approach are worth consideration :—

(A) Measures to ensure a high and stable level of activity in the building industry.

Since certain of the factors making for high costs are closely related to the instability of the building industry, measures to ensure a high and stable level of activity in the industry must be regarded as necessary part of any attack on building costs. Such measures might be designed (*a*) to reduce seasonal fluctuations by introducing improvements in building techniques ; (*b*) to increase the inducements to private house building when private demand tends to fall off, (*c*) to vary the rate of public housing construction in such a way as to off-set any remaining fluctuations in private demand, and (*d*) to subsidise low-cost housing to such extent as may be necessary to maintain the total volume of building activity required to sustain high general levels of employment.

(B) Measures to secure the economics of large-scale mass production.

If a consumer buys a hand-made carpet or radio, a tailored-to-measure suit or costume, he knows he is buying a product which will be of unusual quality or design. He does not expect it to be cheap. Most consumers can afford to spend little of their income on such products. Yet in spending on housing, which absorbs a substantial part of their income and which is usually the biggest single item of expenditure after food, they are buying the product of a largely handicraft industry. Unless they can afford a price which is too high for most incomes, they must, therefore, buy or rent housing which is new and designed for purchasers of their income groups, has been produced with poor quality materials and construction, and in which the size and conveniences have been cut to reduce the price.

What are the obstacles to the application of mass production techniques to housing production? Do lower income groups insist on individuality of design in their houses ? The answer to this is to be found in any typical city, with its great blocks of housing, identical in design. In any case, with a finished product as large as a house and enjoying so large and wide-spread a market, there is ample room both for standardisation of parts on a scale sufficient to permit the optimum scale of production for any one part, and for a wide variety in the finally assembled product.

There are obstacles to building large projects. Heavy investments and large administrative staff are required and the housing investment is generally risky and unattractive. What is required is the assurance of a greater degree of stability in the housing market. It is true the industry is now composed of various small firms, but most industries were originally in the same position and the producers were gradually forced to enlarge their scale of operations or go out of business. In any case, mass production will be a slow-going factor in the housing market. It may perhaps be introduced for building programmes for lower income groups. Higher income market would still continue on individual basis for a long time to come.

This development of new methods of production can take place under the auspices of private enterprise though Government will have an important part to play in assuring producers a large and steady market. Individual ownership of land may also stand in the way of development of large scale housing projects. Only governmental action can force the present owners to permit their land to be used at reasonable prices for building of houses.

While the maintenance of a high and more stable level of building activity might remove some of the obstacles to the production of houses on a larger and more economical scale, it will not be possible to secure the full economies of large-scale production until structural dimensions and building materials and equipment have been standardised to an appreciable extent. Consideration might be given, therefore, to measures designed specifically to promote such standardisation.

(*i*) Research

There appears to be an urgent need for laboratory and other investigation directed to the development of materials and methods of construction specifically adopted to the needs of low cost housing.

Subjects for investigation should include standardisation of materials and dimensions, scientific mechanisation of building operations and the preparation to production standards for each craft and type of work in the residential building field. Sufficient numbers of dwelling units of various kinds might be constructed to show the industry how to solve the organisational and technical problems involved. Both the organisation of such research and the effective utilisation of its results would appear to be matters in which the organised employers and workers of the building industry might usefully take an active interest.

(*ii*) Standardisation of building materials and structural dimensions

This can achieve economies both in production and distribution. Consideration might be given to possible ways of bringing about the speedy and wide application of standards evolved as a result of such research or of the work of the different countries.

(*iii*) Standardisation of building codes

In many countries the municipality and variety of existing local building codes form a serious obstacle to the standardisation of the building materials, structural dimensions and other features of building design and practice. A considerable impetus could be given to such standardisation by the revision of antiquated and unnecessarily restrictive building codes, by the formulation of uniform codes and their revision from time to time in order to take account of new materials and processes by action designed to secure the wide spread adoption of such codes by local authorities.

In 1950 the Government of India appointed an Experts Committee to go into the question of reducing the building costs. The Committee in its report said that joint and vigorous efforts have to be made by several authorities spread all over the country if building costs are to be effectively reduced. After taking all factors into consideration, the Committee thought that the following features have an important and direct bearing on the building costs:—

(1) The scales and standards of accommodation provided for various purposes, namely, residences, schools, colleges, hospitals, hostels, etc. These varied widely in different

projects and were sometimes influenced by consideration of prestige.

(2) The constructional specifications in which also there were substantial variations in different projects, even in the same localities.

(3) The degree of importance attached to durability, low maintenance and conveniences on the one hand, and the first costs of the building on the other. The differences in the policies followed have resulted in abnormally high first costs in some cases and in the adoption of sub-standard specifications in others.

(4) The degree of awareness among engineers and architects of the importance of cost in connection with building construction.

The Committee reported that India spends about 175 crores per annum on the construction of buildings of various designs and specifications. To what extent these varying standards and specifications, etc., affect the cost of buildings is illustrated below:—

(*a*) While in one case the cost of a residential quarter was Rs. 3,600 ; the cost of building an almost similar quarter in another case was about Rs. 8,500.

(*b*) Cost of some bungalows of the same design varied from Rs. 20,000 to Rs. 45,000 in different localities constructed by various agencies.

There were similar instances in the case of constructing hospitals, schools, etc.

The Committee further recommended that in view of the high cost of building materials and the labour, an all-out effort is necessary to achieve economy. To effect this, it thought that the pooling of all the knowledge and experience on the techniques of building construction was very essential and recommended the establishment of a Central National Buildings Organisation. Such steps have already been taken in many foreign countries and the U. N. Mission on Tropical Housing, which recently visited India, also recommended such a step. The Planning Commission have also suggested in their First Five Year Outline Plan the formation of such an organisation. The main functions of such a body will be to make proposals for obtaining additional revenue ; to advise on technical matters, including research, new techniques, etc., to advise on rationalisation in building legislation ; to supply information on up-to-date and popular types of buildings ; to introduce designs based on architectural, technical and economic principles ; to co-ordinate between several agencies connected with the construction programmes and schemes.

(G) Other Measures to Reduce Housing Costs

Other elements in housing costs include the cost of financing house construction ; the cost of building, land and taxes levied on house property or assessed on the basis of housing space.

Financial Assistance and Public Housing

However successful efforts to reduce housing costs may be, there will still remain families whose income is insufficient to enable them to pay the full commercial cost of adequate housing. Since the process of cost reduction will inevitably be difficult and gradual, it is likely that for a long time to come a substantial proportion of families in the lower-income groups in every country will be in this position. The role of the public authorities in relation to housing, is therefore, bound to be of great importance.

In foreign countries such as U. S. A., Canada and European countries public action has taken a great variety of forms, designed both to assist the building of houses for private ownership and to provide public owned houses for rental at low rates to low-income families. Measures have been taken in particular to improve the organisation of real-estate credit and to guarantee or insure mortgage loans ; to provide such loans on favourable terms through specially created State or other public institutions ; to grant reductions in or exemption from property taxes; and to subsidise and in other ways facilitate slum clearance and the provision of low-rent housing by municipalities and specially created housing authorities ; and in certain cases the State itself has undertaken large-scale housing programmes, acquiring land, commissioning private firms to build the houses for its account, and letting the houses at low or moderate rentals to selected tenants. Full details of the financial assistance provided in foreign countries are given in a separate chapter.

In India so far very little has been done in this direction. The Government of India set up a factory for mass production of prefabricated houses. This, however, has not been successful. Details are given in a separate chapter.

CHAPTER LXVI

RECENT EXPERIMENTS IN BUILDING CHEAPER TYPE OF HOUSING

This question has been engaging Government's attention for sometime. It was discussed at the Governors' Conference and with the Planning Commission. India has also gained experience in building cheap houses during the last 4 years as houses costing 40 crores of rupees have been built for the displaced persons. Government are having full investigations made by competent persons into various types of cheap houses that have been made by various Governments or by private concerns. The Hon'ble Minister for Works, Housing and Supply, in the course of a broadcast on the 7th June, 1952, pointed out that his Ministry was examining the question of constructing cheaper houses consistent with durability and the suggestions made by a committee of experts on buildings regarding alterations in designs, specifications, use of indigenous material and methods of construction, were now receiving active consideration.

Government are also planning an International Exhibition of cheap houses and housing material to be organised in India in early 1954. It will bring not only the Indian type of cheap housing together, but also foreign experience and models. The Ministry of Works, Housing and Supply is working on this. Some experts who have had experience of constructing cheap houses abroad are likely to be invited.

The following are some of the more important experiments carried out in this connection :—

Stabilized Soil Construction

(*a*) In the Punjab

As a result of research, it was decided in 1948 to adopt cement-soil mixtures for walls in superstructure for the construction of 4,000 houses for the displaced persons. The foundation plinth and the roof follow the traditional types of construction, but the walls are constructed of stabilised earth, making use of 2.5 per cent (by weight) of cement. Throughout the operation considerable control is exercised over the grading of soil and subsequent addition of water. The soil to be stabilised has to be graded so as to contain sand, silt and clay in optimum proportions. The grading is done by laboratory experiments, and so also is the optimum moisture content determined. The advantages claimed for this type of construction are :—

(*i*) Elimination of the use of burnt bricks for the superstructure.
(*ii*) Because of the low thermal coefficient of the stabilized earth walls, the rooms will be very much cooler than those constructed with burnt bricks.
(*iii*) No skilled labour is required for the superstructure.
(*iv*) Quicker execution and cheaper construction.

(The cost of the completed structure is about Rs. 4 per square foot of plinth area).

(*b*) In Mysore

The City Improvement Trust, Mysore, has now taken in hand housing on a fairly large scale in the Yeshwantpur Industrial Area. The plots for factories are allotted on condition that the factory would provide housing for at least one-fifth of the labour employed. The industrial area is very well-planned and a separate area has been allotted for the housing of labour. The houses for labour are being constructed by the City Improvement Trust Board themselves. Each worker's quarter consists of two rooms (8′ × 10′) with a small verandah in the front and a courtyard at the back, a kitchen and independent bath and latrine. The construction is of the traditional type using soil-cement blocks, mortar and cement painted on the outside and plastered on the inside. The mortar adheres to the surface without any difficulty. For making the blocks the soil is mixed with cement. The proportion of cement varies from 1 : 20 to 1 : 24, according to the nature of the soil. The soil and cement is probably mixed in ordinary concrete with a small quantity of water. This mixture is then put into moulds and well rammed to form blocks, each measuring 15″ × 10″ × 8″. The blocks are kept wet and 12 days' time is allowed for curing. The blocks attain a crushing strength much more than that of ordinary bricks. The bigger size of blocks enables construction work to be carried out expeditiously and without the need for highly skilled means. The success of the experiment is largely due to the soil locally available. It is ordinary laterite soil with a very high proportion of gravel and grit. There is practically no trace of clay. This type of construction would only be suitable in Mysore, some parts of Hyderabad, on the west coast and certain parts of Bihar where such soil is available.

B. B. & C. I. Railway experiments on cement guniting

The B. B. & C. I. Railway constructed a number of houses for workmen with cement gunited hollow walling. Three types of houses have been built :—

1. Houses with 2″ thick reinforced cement gunite walls and columns (cast in situ) ;
2. houses with situ gunited columns and walls of 4½″ sundried and burnt gunited ¾″ on both sides;

3. houses with all components prefabricated. The walls are only 2″ thick. While this would be suitable for temperate climates, it would not be suitable where the summer temperatures are excessively high. The net saving in total cost (over traditional types of construction) is claimed to be about 15 to 20 per cent.

Hyderabad type of houses

These houses cost only about Rs. 1,250 each—very low figure which is due to there being no cement or steel used in construction. The roof also is of a specially designed cheap kind of tile. The houses of this type can be built at this cost or anything like it only where they are constructed under aided self-help schemes by the people for their own use. The cost would not be so low if construction is done through contractors. As a result, though the authorities in Hyderabad laid big claims on these types of houses, they themselves adopted the conventional type of houses for the housing of their industrial workers. These conventional types cost approximately Rs. 2,750 per unit, consisting of two rooms 10′ × 18′ a verandah 8′ × 8′, a kitchen 6′ × 6′, a bath and W. C. The cost of even this type is quite moderate as it works out to only Rs. 4 per sq. ft.

Houses for plantation workers

The tea industry has made remarkable progress in provision of housing for plantation workers and during the last two years over 60,000 houses have been constructed. These houses are of three types:—(*a*) *kutcha*, (*b*) semi-*pucca* and (*c*) *pucca*. The accommodation in both the semi-*pucca* and *pucca* houses is the same.

The *kutcha* houses are made of bamboos with plastering and have mud floor and thatched roof. They cost less than half what *pucca* houses cost. The semi-*pucca* houses have brick plinth, brick walls for the first few feet, frame-work of metal or timber, upper parts of split bamboos and plaster, corrugated iron or thatched roof. While *kutcha* houses may be well suited where persons build houses for their own use, they are not likely to be suitable where large-scale constructions are undertaken through contractors or where the houses are to be rented to others. The reasons for this will be apparent from the following passages occurring in the reoprt of the U. N. Mission of Experts which investigated the question of low cost housing in South and South-East Asia:—

> " At Bandung 500 houses for the low income groups were built. The Government unfortunately used non-permanent material, a system of building which 30 years ago had already proved uneconomic for governmental or municipal housing, due to the high costs of maintenance and the shorter term of amortization."

> " Although it is strongly recommended that all house building by the Central or local Governments should be in per-

> manent materials, this does not mean that temporary material should not be used by people building their own houses, whether in rural or urban areas. A house is used by its owner with much more care than by a renter, so that costs of upkeep are much lower."

The Mission has made these observations with particular reference to the houses constructed in Bandung. The plinth and about two feet of the wall are of bricks with timber frame above. The walls are of bamboo mats and the roofs tiled. The construction is so neat that after the walls are plastered, it would be difficult to distinguish these in outward appearance from real *pucca* houses. They may be well suited for construction of houses in outskirts of cities by persons who are to vacate houses demolished in slum areas.

Hollow cement concrete block construction

Because of the difficulty of transport and difficulty in getting fuel for burning bricks, in many parts of the country, where good sand and gravel are available, hollow block construction has been adopted in preference to the traditional brick construction. Organised building on a fairly large scale has been carried out for the construction of quarters for workers in the G. I. P. Railway, in some of the Government housing projects at Ahmedabad (Bombay), in the Hirakud Project (Orissa) and in the Locomotive Factory at Chittranjan (West Bengal). This type of construction is considerably cheaper and also quicker in execution than the traditional form of brick construction. With a rich mixture for the face of the blocks, it is found unnecessary to plaster the walls, and this is the main factor which contributes to reduction in the overall costs.

Prefabricated Housing

Some experiments have been carried out in the country on prefabricated housing, but none has attempted production on a commercial scale. The Government of India, however, themselves set up a Housing Factory for the manufacture of prefabricated houses. The factory went into production but owing to unfavourable conditions it had to be abandoned. We have had no experience of prefabs ; their durability under Indian conditions of extreme heat and dampness is yet a matter of conjecture ; and their cost is prohibitive. The materials have largely to be imported and specially qualified labour is required for work in the factory and for setting up of the houses. It is also very doubtful if the country can afford the luxury of prefabs, costing as much as about 4,000 rupees for the structure of a small two-roomed cottage.

In most of the experiments attempts have been made only to cut down the cost in any one particular item of work—either walling or roofing. None of these experiments have suggested any important departure from the traditional methods of construction so as to bring down the cost to any appreciable extent.

In the absence of housing on a large and organised scale, much of the economies that could have accrued as a result of proper organisation and planning have been lacking. It is appreciated that substantial economies could be effected through rationalisation, standardisation and proper organisation and planning. In India today building industry is not an organised industry. There is no training for persons entering the building industry. There has been no large scale building activity for years. Housing today is individualistic ; each individual has his own plan and engages his own building contractor. The contractor parcels out the work to various sub-contractors. This generally leads to high overhead costs ; and the contractor has to leave a fairly large margin for such overheads and profits.

In the Rehabilitation Township at Nilokheri a novel experiment has been carried out by having all the building work done by group co-operative. While the costs cannot be compared with other traditional construction because of the reduced standards adopted in respect of dwellings in the Township, the cost figures show that considerable saving can be effected by the elimination of middlemen's profits.

West Bengal

In Bengal an Engineering firm (Engineers Corporation, Calcutta) carried out certain experiments and produced 4 types (A, B, C and D) of cheap prefabricated houses. Types ' A,' ' B ' and ' C ' were self contained units with bathrooms, kitchen and sanitary latrine. Type ' D ' was barrack type. In these houses no steel and bricks were required. Cement also was required in a very little quantity for the floor only. Timber was mostly used for these houses.

The cost computed by the company of the different types of houses was as follows :—

	Rs.
Type " A "	6,000
' B '	2,900
' C '	2,054
' D '	3,210

Conclusion

From the above analysis the following conclusions could be reasonably drawn :—

(*i*) While houses have been built cheaper in some areas than in others, the cheapest types cannot be adopted throughout the country as the cheapness is partly due to climatic conditions, availability of certain materials at the spot, low labour costs, etc. The houses to be cheap must be made of local material.

In his inaugural address at the Road Research Institute at Delhi on the 16th July, 1952, the Hon'ble Prime Minister laid great emphasis on the use of local materials and remarked:—

" I am quite clear that a housing programme in India should essentially be based on materials which are found locally in a village. Have houses of cement and steel where you can get them but the programme must not depend on some special article which is not easily available. We should increase our cement production and so many other things but we should not wait for that before we proceed building out schools, dispensaries, little hospitals and the like. Let us have by all means *kutcha* buildings or a straw hut. As a matter of fact, some of our modern structures of brick and mortar are horrid and uncomfortable Our Central Public Works Department will say that they are lasting but the first idea that strikes one on seeing some of these buildings is how soon they can be put an end to. Why should they last if they are ugly and uncomfortable ? So, the sooner our Central and Local P.W.D. begin to think not in terms of "lastingness " but of present utility and some artistry and beauty, the better it will be for all, even for the P. W. D. But it is difficult to see how the P. W. D. mentality can be reformed."

(*ii*) That purely *kutcha* houses as, *e.g.*, of bamboos and/or mud may be suitable in aided self-help schemes but not for construction through contractors or for construction of houses to be rented to others. But this type of construction, particularly one similar to the semi-*pucca* houses built in the plantations, should be encouraged in case of aided self help schemes in cities. They will not, of course, be suitable in cities where the cost of land is prohibitive as such houses cannot be built up vertically.

(*iii*) Even in regard to *pucca* houses, economy can be effected by building in areas where the cost of land is not prohibitive or where the soil is not such as involves expensive pile foundation.

Research

In India no particular researches have been made to improve the methods of construction of substitute materials. The Building Research Organisation of the Railway Board has done some research work in evolving types of construction which take into account the present day shortage of building materials and the high cost of construction. Houses have been constructed with *pise* walling (rammed earth in soil cement and ordinary earth) adobe walling, (*i.e.*, blocks in soil cement) precast cinder concrete jack arches and weather proof cement-soil cinder plaster.

The Planning Commission suggested the following measures to be adopted in regard to research:—

(*a*) The Central Building Research Institute at Roorkee provides a nucleus for organised research on technical aspects of building materials and methods. All problems of major importance should be sent to this Institute. There should be in addition regional institutes at selected centres for similar work. Each such institute should have an advisory board representing various interests ; and

(*b*) all construction agencies under public control, for instance, State Public Works Department, Municipalities, Railways Military Engineering Services, etc., should be required to employ the latest building techniques and equipment.

Suggestions by E.C.A.F.E.'s Working Party on Housing and Building Materials (November, 1952).

The Working Party, which was attended by representatives from ECAFE, the U. N. Department of Social Affairs, FAO, ILO, UNESCO, WHO, U. N. Information Centre and by the U. N. Technical Assistant Resident Representative in Delhi, recommended increasing use of bamboo and secondary wood species as substitutes for steel and timber and suggested use of other materials agricultural and forestry wastes like baggase, sawdust and wood chips. These materials would need processing before they could be used as substitutes for building materials. The Party also recommended organised and systematic research into the possibility of a greater use of clay, fat limes and hydraulic limes and suggested economies to be effected on the cost and weight of bricks and tiles by the use of hollow clay bricks.

The Party examined various methods of aided self-help, simplification of design, provision of low-interest credit facilities and what is known as "time zoning". This implies construction of buildings for a somewhat shorter span of life than is the practice now. The standards of cheap housing, however, should be consistent with basic requirements of hygiene, sanitation and the prevention of disease, water supply, bathing facilities, sewage and garbage disposals, ventilation, etc.

CHAPTER LXVII

PREFABRICATION, MASS PRODUCTION ETC. OF HOUSES

Definition

One of the most talked-about and least understood products of twentieth century is the prefabricated house. To the uninitiated the word "prefabrication" conjures up vision of houses rolling off assembly lines like so many automobiles, all neatly packaged and delivered ready for setting up on a chosen site. There are many definitions of Prefabrication and none of them is entirely satisfactory, because they fail to distinguish between mass produced materials and mass produced components. The British Ministry of Works defines prefabrication as " the formation of buildings or components for buildings by the assembly of materials or units otherwise than in their final position." (The use of standards in Building. First Progress Report of the Standards Committee. H. M. Stationery Office, 1944). Mr. R. L. Davison, Director of Research J. B. Pierce Foundation, said, "Prefabrication is the assembly, in varying degrees, of parts of sub-assemblies into sections to be assembled into a structure, as distinguished from the assembly of parts during erection of the building." The prefabricated house represents an ideal of securing mass production of houses to sell at low cost regardless of geographical limitations and styled to appeal to all tastes.

There is a tendency to assume that prefabrication has been developed only to supplement orthodox methods of construction during a period of emergency. While it is true that abnormal conditions have concentrated attention on prefabrication, it is not in itself a new development, but rather an intensification of a process already apparent. There has been a shortage of houses for the lower paid worker ever since the Industrial Revolution and this has led to experiments designed to increase the output and decrease the cost of building. These two considerations account for the attempts of the last few decades to rationalise building technique or to experiment with new materials. But a further element, which is a general characteristic of modern industry, is the standardisation of performance and dimensions of building components. Standardisation is a function of mass production and as a process it is ancillary to prefabrication. But the one can exist without the other.

Evolution of pre-fabrication

The idea of prefabrication is not new. Years ago the first prefabricated house must have been erected by settlers moving from one place to the other who took along the cut and partially assembled parts of a house to provide them with immediate shelter and protection in a hostile land. As time went on lumber sawing and saw-mills sprang up, doors and window frames began to be reconstructed. Prefabrication thus developed gradually. In European countries, in almost every house, doors, windows and staircases are generally made elsewhere.

A history of prefabrication is, however, still to be written and there is no definite account of the origin of this development of building technique. A great deal of preliminary work has already been carried out in America, not only by commercial firms, such as the American Rolling Mills and the Celotex Corporation and by individual designers but also by research organisations like Bemis and J. B. Pierce Foundation. Experiments in precast concrete were made as far back as 1860. In England the development of coal and iron resources was accompanied by a fever of experiment in the uses of cast iron. Experiments have been going on and there has been a steady attempt to eliminate time-wasting site work and to design building units which are capable of rapid production and erection which are sufficiently conventional. Even in America the precut timber industry began to evolve standardised structural panels already lined internally and externally. This has the effect of transferring much of the assembly work from the site to the factory. This helped development of timber prefabrication in India. Mass house was designed as long ago as 1927. Plywoods made it possible to produce a rigid panel. France has developed it in all its forms. Precast concrete structures were developed in England and France soon after the first World war. In England steel was used for house construction as an alternative to brick.

One of the original reasons for prefabrication was the belief that there was a tremendous potential market for very low-cost houses. It was obvious that such houses could not be supplied by ordinary methods of building and mass production seemed the logical solution. The idea was attractive to a large number of individuals and organisations. Some success was achieved with precut houses of small size such as those used for summer cottages or small buildings like garages, chicken houses, etc. Various manufacturers of building materials became interested in prefabrication to sell a larger volume of their own product such as lumber, steel, etc. Similarly a number of research organisations were investigating house design, testing materials and methods of incorporating them in prefabricated houses. The objects of the research were to combine economy of manufacture with simplicity of erection, improved sanitary life. During the first World war, some manufacturers got experience in the mass production of houses for the Government but the standards were rather low. The problem of distribution of houses over a large area with its excessive transportation cost was serious. The problem of securing strength and rigidity with light weight has led to a number of ingenious devices, such as the introduction of plywood, cupboards as a part of the structure. In European countries, the mechanical equipments essential for modern living such as the unit system, the cold and hot water supply system, etc., presented a problem to the fabricators. It was difficult to incorporate all those devices in the walls and so the prefabricators started experimentation with utility units or cores. These cores consist of a separate removal of bathroom and kitchen units, complete plumbing and wiring, the heating plant etc. The prefabs can be classified under one of the four heads—the precut, the panel, the sectional and the trailer types.

In the precut system, the house itself is usually of conventional construction, that is, it is made up of 2 by 4 studs, and so on, and lumber is the principal material. The only thing that the prefabricator does is to cut the lumber to size, knot it where necessary, number the parts, and deliver them at the building site. The erecting contractor then builds the house just as he would a conventional one. From the prefabricator's point of view, the advantages of this method are that he can buy the materials in large quantities and do a great deal of the labour with the use of power tools in his plant.

Prefabrication system number two is called the Panel system because the house walls are made up of separate sections called panels, and the rest of the building is similarly divided. In some of these houses the walls are made exactly as they are in conventional houses but they are shipped to the site in sections four feet wide and eight or nine feet high. The advantage of this more complete fabrication is that it includes all the precision features of the precut system plus a great deal of additional assembly. This extra work is done at low cost in the plant where power tools, jigs and templets are available.

The third basic prefabrication system supplies the complete house, divided into sections. There are two variations of this system. In one of them the house may be considered as a loaf of bread that has been cut into slices. These ' slices ' of the house are about eight feet thick. The house therefore can be made almost any length and shipped to the site in eight-foot sections.

The one large drawback to the system is the very high shipping cost. The sections cannot be nested into one another, so that each unit consists of a hollow shell surrounding a large volume of air that takes up valuable shipping space.

The fourth type of prefabrication consists of making complete houses of such proportions that they can be hauled by truck. This means that they cannot be much more than eight feet wide.

Technique of Prefabrication

The aim of prefabrication is to reduce site work. Several questions have to be considered in connection with the technique in prefabrication. These are (*i*) site work, (*ii*) unit sizes, (*iii*) modular ratios, (*iv*) structural principles, (*v*) physical standard, (*vi*) planning, (*vii*) design, etc.

(*i*) Choosing a plot of ground on which to erect a prefab is no different from picking out a spot to build any other kind of house, and you go about it in the same way. The site, however, is one of the most important factors in determining the kind of prefab one should buy. In most places there are definite restrictions on the type and size of house you can put up and the materials of which it may be constructed. So before one even begins to comb a neighbourhood for a site for his house, he should make sure that the local ordinances will permit him to put up the type of prefab he has chosen. After the site has been selected, it is necessary to make certain that there are no restrictions in the deal and no other agreements or covenants exist that will limit use of the land.

Apart from the physical nature of the land that composes the lot, the surrounding area needs to be taken into consideration. The neighbourhood is important, especially in urban areas. The first thing, therefore, is to determine the general character of the neighbourhood—the type of people who live there, the kind of houses they live in, and the care they take of them.

(*ii*) Every material has certain critical dimensions. Sizes of the various kinds of wall boards are determined in relation to their economic production. Sizes and weight have influence on the case of handling on the job of transport. Concrete slabs are brittle and have to be hoisted into position. Steel and light alloys can be made in large units. Large sizes reduce the amount of jointing and connection. Experience shows that stresses in lifting transport and stacking are high. Usually the units smaller than economic maximum for manufacture or transport proves to be more economical .

(*iii*) The object of a modular ratio is to allow flexibility in all parts of a building and thus to eliminate difficulties in assembly. Just as each system has its own modular ratio so there appears to be in each system, a unity and conception which is individual and to which all the components are related.

(*iv*) A successful system of prefabrication is one that is suitable for mass production. The engineering requirements for any system are that it should lend to the production flow and assembly. It should not require specialised plant. It should allow for easy transport and stacking. The number of different units should be limited. Economy of site work is of great importance. A system must also aim at employing the minimum amount of skilled labour.

(*v*) Certain physical standards, thermal efficiency, etc., have also been laid by various Committees in England. The walls have to be built keeping in mind the sound insulation and fire hazard. The designs of prefabricated houses are not likely to appeal to public who generally think in terms of a brick house. This prejudice can be overcome by familiarity and by the realisation that the building is designed to precise and efficient standards.

The interest in steel prefabrication in America and England was in part the outcome of economic pressure—to find further uses of steel during a period of depression. Commencing with role steel sections the use of steel and non-ferrous metal was extended to include pressed sections like door tins and cover strips as well as cupboards and panels metals are becomingly suitable for prefabrication. They have a high strength over weight ratio. The gross section is uniform.

Prefabrication in England and America

The cessation of normal building activity during the war caused a shortage of a million houses in England and to this effects of bombing, etc., had to be added. It was felt that 4—6 million new homes were required in U. K. after the war. Moreover existing building became obsolescent. In America as far back as the thirtees some 10 million families were living in sub-standard conditions. In these countries it was felt that even if the building industry were increased, it would not be able to deal with the building shortage within a measurable term of years. Additional methods for augmenting the output were necessary. This factor aroused popular interest in prefabrication and gave a stimulus to its development. The established industry could not be expanded to the point at which it could provide the necessary buildings in short time.

It is instructive to compare the development of prefabrication in England and America. In the former, in the years before the war, there was less experiment than in America where many different types of construction were tried out and a number commercially exploited. In England most constructive experiments were concerned with the development of precast concrete units while American methods originated in timber and, after considerable work with steel, returned to timber when mass production of a large scale became essential after 1942.

The reasons for the concentration on concrete in England are related to the housing problem which developed during the first World war (1914—18). Building costs were high and only a small number of houses could be built. Government tried to encourage house building by granting subsidies. The high cost of building in the post-war years, the shortage of skilled workmen and brick-layers in particular, led to experiment in methods of concrete construction. A numer of houses were also built using steel for panels and for framing.

In America prefabrication was examined as method of reducing the cost of house building. This is perhaps due to the long-established tradition of mass production to a greater readiness to experiment in its applications. There is also less inclination for State responsibility for industrial and social relationship—it was not until the thirties that the Federal Government offered any form of assistance in the provision of low cost housing. Such housing, it was argued, was the concern of private enterprise, and private enterprise could look after it by lowering building costs and thus reducing rents. Typically, America attempted to do this not by lowering wages, but by applying those methods which had strikingly reduced the cost of automobiles.

But a further and extremely important factor was also present—unlimited supplies of homegrown timber. Timber stands in the same relation to house construction in America as brick does in England. American development has been directed primarily to reduction in cost. The pressure which has kept the prefabrication movement going is the problem of producing housing within the reach of the mass market. In America private enterpriser supplies low cost housing and impetus was given in prefabrication as means of reducing initial costs. In England the State subsidised low cost housing and development of alternative means of building was the result of shortage of skilled men and when this was made up the incentive disappeared.

During World war II both countries had the same problems. In the new war plants in England hostels were constructed. In America too hostel resumed the same importance. In America the incentive given by the wartime housing schemes to prefabricated methods of construction enabled various firms to get down to mass production. Timber was plentiful and this lent itself admirably to prefabrication. It is easily manipulated and the plant does not require a large initial outlay. So the Americans developed panel system of fabrication.

Prefabrication in India—Delhi Factory for Pre-fabricated Houses

The object of prefabrication is to cut down the cost of actual construction of buildings by using fabricated units. The consideration of cost, though by no means negligible in India, is of major importance in Western countries where labour costs are high. Our own needs at the present moment lie rather in the direction of speed and quantity ; we require houses in a hurry and require them in large number. The answer to this is the American system of mass production, which formed the basis of the Health Ministry's housing plans.

The corner-stone of these plans is the new building material originally invented in Sweden during the 1st World war and developed at the Building Research Station at Watford in Hertfordshire. Ordinary cement mortar is foamed either by a chemical or mechanical process and cast into moulds. The blocks of " foamed "concrete are spongy in structure, and so light that they float in water. At the same time they are as strong as the ordinary country brick. Their small weight is a factor of considerable importance as it makes their transport a comparatively easy problem. But the greatest virtue of the new material is its heat-resisting quality. It is estimated that four inch thickness of " foamed " concrete gives the same amount of protection against heat (or cold) as eighteen inches of the usual building materials.

In July 1948, the Government of India decided to undertake a scheme for the manufacture of pre-fabricated houses. Messrs. Structural and Mechanical Development Engineers Limited, Slough Bucks, United Kingdom, were engaged as Consultants and their system of prefabrication by high pressure steam cured "foamed concrete" was adopted. An agreement for a period of 14 years for setting up a factory or factories in India for the manufacture of pre-fabricated houses was entered into with this firm on 12th October 1948. The firm supplied designs, etc., and services of technical experts on payment and were to get a royalty on a sliding scale based on the panels manufactured.

The design work for the house as well as for the factory was started in England. A site in Jangpira (New Delhi) was selected and construction work started in May 1949. In the centre of the factory were the mixtures with which cement, ground and foam and water would enter in measured quantities to form the basic material for construction. The biggest constituent was the Jamuna sand which would be converted into a fine powder before entering this mixture. To begin with it was decided to produce only one type of house with an area of 500 sq. ft., the accommodation consisting of 2 living rooms, one 10′ × 12′ and the other 10′ × 10′, a verandah of 10′ × 7′ and a kitchen of 9½′ × 7′ as well as small bathroom, an enclosed courtryard and a latrine. Sand was the main raw material used. In addition some quantities of cement, aluminium alloys, glass-wool—and hard board were to be used. The average life of each house was expected to be not less than 60 years and the average output about 100 houses per week.

Each house weighed only 6 tons. The walls, only four inches thick, were made of a special type of " cellular concrete " or " alcrete " a mixture of sand, cement and a kind of chemical foam, all compressed under high pressure to make the resulting "alcrete." "Alcrete" is absolutely moisture-proof ensuring stability. Such walls are capable of withstanding pressure of about 1,200 lbs. per sq. inch, and this is much more than what a brick wall can stand.

The roof usually two inches thick was to be covered with troughed aluminium sheet on the upper side, and a hard fibre board underneath, and in between was layer of "glass wool" one inch thick. The doors and windows were made of chemically treated timber. The lightness of the walls eliminated the need for elaborate foundation.

The factory could produce houses of required dimensions. Originally each house was estimated to cost about Rs. 2,500 excluding site value and services but subsequent developments showed that the cost would be considerably higher. The devaluation of the pound and of the rupee increased the cost of alumimium alloy components while import duty on aluminium products of about 30 per cent which was not taken into account in arriving at the original estimate increased the overall cost.

The fixed capital expenditure, which included the main buildings and machinery as well as workers' quarters and subsidiary plants for the manufacture of indigenous roofing materials, was originally estimated at Rs. 52 lakhs and the initial working capital at Rs. 23 lakhs.

A Committee consisting of the Secretary, Ministry of Health, representatives of the Ministries of Finance, Labour, Industry and Supply and Works, Mines and Power as Members and the Director of Housing as Member Secretary was incharge of the direction of the policy of the factory and was responsible for approving the budget, working programme and balance sheets while the Director of Housing was in actual charge of the management of the factory.

The following procedure was laid down tentatively for the allotment of the prefabricated houses to be manufacturd at the Delhi Factory :—

(*i*) Allotment will be made only on a cash payment (or book transfer as the case may be) of 75 per cent of the purchase price, the balance to be paid on delivery.

(*ii*) Allotment will be made only to persons or agencies (including also Government offices) who are in possession of level sites with road access and with water for drinking purposes within 200 yards.

(*iii*) Subject to the conditions laid down in (*i*) and (*ii*) the houses were to be allotted according to the priorities in the following order—(1) Government agencies connected either with the rehabilitation of displaced persons or the housing of medical personnel, (2) Delhi Improvement Trust and other Government agencies, (3) Co-operative Housing Societies of displaced persons and others and (4) Labour Housing Schemes sponsored by employers.

The factory started functioning, but the houses did not command a ready sale owing to various factors, such as high cost of production and certain technical difficulties, *e.g.*, doubtful safety of the houses produced, etc. Moreover, areas where the houses were to be installed had to be developed before hand in regard to common services, sanitary arrangements, administrative buildings, etc. Also for each house, foundations, etc., had to be laid in the ordinary way. It was, therefore felt that the scheme in the present form would not be a success A Technical Committee was accordingly set up in April, 1951, to inspect the factory and its plant and equipment and to advise Government regarding the utilisation of the factory in the best manner possible from the economic and technical points of view. Their recommendations in a nutshell were :-

(*i*) The construction of double storeyed framed structure houses with load bearing columns of foamed concrete blocks and non-load bearing wall panels.

(*ii*) Manufacture of foamed concrete roofing slabs with anti-rust treated reinforcement as a side activity.

(*iii*) Diversion of a part of the production capacity to the manufacture of asbestos sheets.

(*iv*) Carrying out the scientific work at the National Physical Laboratory and at the factory with the assistance of the staff of the Laboratory and of the Building Research Institute, Roorkee, at all stages of manufacture.

(*v*) Putting the factory to alternative uses, like the production of hollow concrete blocks, precast cement concrete materials, such as T beams, solid foam, etc.

(*vi*) Entrusting the management of the factory to some experienced engineer having some practical and scientific knowledge in house building and the material.

Experiments suggested by the Technical Committee were carried out and proved conclusively that good roofing material could be produced out of foamed concrete at competitive rates.

Regarding the capital outlay on the Housing Factory, the Hon'ble Minister for Production, replying to a question in Parliament on the 26th June, 1952 disclosed that the total money invested by the Government in the construction and working of the Government Housing Factory in Delhi was Rs. 107.94 lakhs. He also said that on the advice of the Expert Committee, Government had decided to make use of the factory to manufacture prefabricated materials.

Government of India received certain proposals from private parties offering to take over the factory or to run it profitably. The Government considered a proposal from an Indo-Swedish firm for running the factory in association with them for the production of prefabricated houses of prestressed concrete parts, foam concrete slabs and lignoma boards and with a view to putting the Housing Factory to productive and remunerative use, the Government of India have decided to form a private limited company to be known as the Hindustan Housing Factory Limited. The new Company will consist of the Government of India and the Indo-Swedish firm of Messrs Basakha Singh Wallenborg and Sons as equal partners. The Company will be started with an initial capital of rupees one lakh, each party contributing Rs. 50,000. The plant, machinery, buildings and estate of the present Government Housing Factory will be leased to the new company. Messrs Basakha Singh Wallenborg & Sons will make available to the new company, on lease, the additional machinery required for running the factory, as well as the working capital. Each side will be allowed as lease rent a sum equivalent to depreciation permissible under the Income Tax Act, 2½ per cent on buildings and 5 per cent on machinery. For the purpose of depreciation the value of the existing buildings, plant and machinery is expected to be placed between Rs. 45 lakhs and Rs. 50 lakhs. The Government will charge no rent for the land nor would the firm charge the company any interest on the working capital and the technical assistance to be provided exclusively by it. The net profits of the company will be divisible on the basis of 40 per cent and 60 per cent between the Government of India and the firm respectively. Both will have equal number of Directors on the company's Board of Directors, the Chairman of which will be nominated by the Government with the approval of the firm. The Managing Director and the Technical Director will be appointed from among the firm's representatives.

The company will, in the main, manufacture foam concrete slabs for roofing, pre-stressed concrete components (including girders for housing, telegraph and electric poles, etc.), lignoma boards, wooden doors and windows in standardised patterns. The factory will also undertake steel constructions (fabrication of trusses, bridges and hangers, etc.), employing a modern process of electrical welding which is expected to reduce consumption of steel by as much as 30 per cent. The new company, it is expected, will go into production early next year. When full production is attained, the annual outturn of the factory will exceed rupees one crore.

CHAPTER LXVIII

CO-OPERATIVE HOUSING

Co-operative Housing Society—A Most Important Utility Institution

The problem of providing suitable housing accommodation to the people is not merely confined to industrial centres ; but is much wider, embracing every part of the country, urban, semi-urban and rural, though in this book we are concentrating only on Industrial Housing. In dealing with the housing problem private enterprise suffers from the disadvantage which a public body does not, namely, its inability to obtain necessary capital at a low rate of interest. A public body, on the other hand, cannot bestow the interest and attention which an individual can on his construction. A co-operative organisation which is a democratic body, may claim both the characteristics, *viz.*, individual interest and ability to raise funds at low rates. It serves its members and does not seek profit. It is subject to registration as a corporate body and its regulations are subject to approval by the Registrar of Co-operative Societies. As a public utility institution it is eligible for special concessions from the Government in the matter of finance and exemption from taxation such as registration fees and stamp duties.

Salient Features of Co-operative Building Society

A member of the public is enabled to secure a house on payment of the cost of site and a fraction of the capital cost of construction of the house and to pay the balance in equated payments over a long term of years out of what he would have had to pay as rent of a leased house. He cannot be thrown out of the tenancy and has all the benefits of ownership as long as he pays the instalments regularly. On account of its various advantages, co-operative house building has proved very effective in the solution of the housing problem in many countries and some industrial States too have begun to take advantage of such experience.

Co-operative House Building in Foreign Countries

Although co-operation is based on self-help and, theoretically speaking, should ask for, and expect, no help from the State, it is clear that the hard realities of the situation, almost in every country have forced co-operative societies to seek aid from the State. It is probably only in America that self-help projects are well able to stand on their own feet. Consequently, in almost all the countries, governments have entered the field of housing finance in some form or other.

In many of the countries, loans are given by the government at low rates of interest to co-operative societies, notable examples of such countries being Sweden and Denmark. In Australia, the government guarantees repayment of loans taken by societies from financing agencies. In other countries, as for example, Switzerland and also Sweden and Denmark, subsidies are given. In Switzerland and Sweden, the local bodies too play an important part ; they aid and promote housing schemes ; they not only provide finance, but also guarantee State loans. A noteworthy feature in Sweden is that the housing colonies of the poor are formed by the members themselves supplying all the manual labour required.

In most of the countries, however, members have to make a small initial payment and follow it up with monthly or annual instalments to cover the cost of building. In order to obviate the need for heavy instalments, members sometimes begin to make advance payments even before the commencement of building operations. But the share capital supplied by the members or their initial payment forms only a small percentage of the total funds required. In the U. S. A., funds are obtained as loans from joint stock banks or insurance companies or by floating debentures. While there is a State Housing Bank in Norway, in Switzerland, the Co-operative Central Bank supplies finance to co-operatives. In case where the Government directly finances the societies, the money is raised either by loans or taxation. At times, among others, profits from utility services are used for the purpose.

Types of Societies

In England there are two different kinds of societies, the one merely buys land on which its members may build houses on separate plots ; and it either retains the ownership of the ground until the building member has paid the total amount due from him or transfers the land and has a mortgage on the house. The other has a higher aim, and not only seeks to provide houses for its members, but attempts to develop the amenities of the neighbourhood, to create a common social life among the people, secure sanitary and aesthetic advantages, regulate the architecture and the orientation of buildings and provide adequate open spaces, parks and recreational grounds for the residents. Co-operative estates of this type now exist at several places in England. There are about a hundred societies in Great Britain alone. In Germany also there were two kinds of building societies—the one which builds to let and the other to sell to the members ; but the latter are rare.

The question of funds, needed to carry on the work of the societies, requires some consideration. The building society generally starts with buying land from the value of the shares subscribed by the members, as soon as they are adequate for the purpose. The land is then mortgaged and out of the money thus obtained some houses are constructed. These are, in turn, themselves mortgaged, and with the proceeds more houses are built and the process is repeated till every member is provided with a house. But all this is not easy. The rise in the cost of building has been so immense that the rents would have to be almost prohibitive in order to pay even a nominal interest on the mortgage bonds. The difficulty of finding a banker who will advance money on such mortgages up to a high proportion of the value and for almost indefinite long periods, has to be encountered. Fortunately, lavish government grants have been made to cover the unremunerative part of the cost of building—the expenditure which cannot be covered by rent—on the condition that rents are controlled, preference is given to those with special claims arising out of the War, or to persons with larger families; and that the right of pre-emption is guaranteed to the State. Mortgage loans have also been issued, through the Central Bank and other agencies, up to 90 per cent of the value of the property, and at a nominal interest.

Conditions in India

To turn now to conditions in India. The most striking feature is that, in the context of the total immediate demand for housing, the percentage of effective demand representing those sections which can pay economic rent is very meagre. Consequently the Government has to meet the burden of providing houses to more than 90 per cent of the homeless at only a nominal rent. At least two million units of housing are required immediately to relieve the housing shortage. Assuming that the average cost per unit is Rs. 5,000 based on the estimates of the Housing Board, the total cost comes to about Rs. 1,000 crores.

From where is all this finance to come ? Our only hope lies in the development of co-operative enterprise. While Madras and Bombay have been able to present some record of activity in respect of housing co-operatives, the housing movement in other States is still in its infancy. Even in these places the societies are no longer within the reach of even the higher income middle class group. In the State of Bombay, there are at present about 857 co-operative housing societies.

There is a feeling that credit institutions, insurance companies in particular, do not play their part in extending cheap credit for mortgage loans on co-operative or private housing projects. They should be enabled to do so. If for example, loans on approved projects carry the guarantee of the proposed corporation that interest and amortisation charges would be regularly met, these insurance companies would be prepared to extend their support. The proposed corporation may take to financing of direct building and appropriate rent policy, so that excess costs can be amortised over a fairly long period with State subsidies. It may also extend credit facilities to private and public builders and insure mortgage loans advanced by approved lending institutions. This should be in addition to the provision by the Government of all facilities regarding acquisition of land and building materials. It may also be necessary that, for a specified period at least, houses built on a co-operative basis should be exempted from all taxes.

Types of Housing Societies in India

Co-operative housing societies are generally of two types(1) Individual ownership system and (2) Co-operative system.

Individual Ownership System

This type of society lends money to its members for building houses. It is really a credit society but is distinguished from other credit societies by the objects for which it lends, the period of the loan and the security it demands.

Co-Partnership System

Co-partnership system has been developed on two lines. One type of society enables its members to become the owners of their houses by means of the system of hire-purchase and the other retains possession of the buildings erected and merely rents its dwellings to members ensuring continuity of tenancy. This system has been tried in several parts of India. Houses are built in the form of flats for tenants. According to the plan on which this type of societies are formed in Bombay, the member contributes by shares and then pays rent calculated to cover not only the economic rent of his house but also an amortization of the sinking fund. At the end of the period he is entitled to the right of occupation of the building as a tenant of the society of which he himself is a member continuing to pay only a nominal rent to meet the maintenance charges. The society collectively owns the property and the tenant members have only the interest of shares in the society. This is a type of society which fully calls for the unselfishness, brotherhood and co-operative idealism, and deserves to be tried. One advantage is that in flats it is possible to own one flat or part of a flat in a large building.

Co-operative Ownership

This is a modified type of society in which separate houses are built to suit the tastes and requirements of individual tenant members. The member holds his house from the society as a lease-holder. The lease contains strict conditions against sub-letting, transfer or other forms of profiteering or parting with the property without the written permission of the society. The lease-holder may pay the full value of the house on occupation or pay instalments as the co-partnership tenant does. After a member has paid the full value of the house he owns the house, but continues to pay a nominal fee for the upkeep of the building. The advantage is that the upkeep is done by a joint agency; and the colony is a closed colony where only approved members may have tenancy.

Individual Ownership versus Co-Partnership

Co-partnership system lacks the following advantages: (1) individual ownership, (2) an independent house (3) the satisfaction of building one's own house according to one's own personal interest and (4) the personal interest in and supervision over the actual construction and maintenance.

For these reasons, the existing building societies in several States are formed on the individual ownership system. Under this type, the society ordinarily obtains funds from shares, loans from Government and deposits from members. These funds are utilised in giving loans to members for building houses on the security of site or sites belonging to the borrower together with the proposed building and appurtenances thereon. The construction of house is ordinarily undertaken by the members themselves.

Recent lines of Development

Recently two new lines of development have taken place, the Co-operative Township and the Co-operative House Construction Society. The Co-operative Township aims at providing not only loans for the construction of houses but also other civic amenities for the members such as water supply, lighting, sanitation, health service, recreational facilities, etc., which are usually provided by civic bodies like municipalities, etc.

Co-operative House Construction Society

The Co-operative House Construction Society is based on the co-partnership system. The society acquires sites, constructs houses and lets them out to the members on the hire-purchase system under which a member becomes the ultimate owner of the house provided he regularly pays a specified amount as rent for a stipulated period, usually twenty years.

The salient features of this society are: (1) it arranges the construction of the building on behalf of the member and he is thus relieved of much of the trouble in the procurement of building materials or of the supervision of the construction, and (2) it permits renting by a member with the approval of the society.

Bomaby

The Co-operative Housing movement in the Bombay State was initiated in the year 1915, with the registration of the Saraswat Co-operative Housing Society at Bombay. The movement made very slow progress in the initial stages; it received an impetus when Government announced State assistance to the Co-operative Housing Societies in 1924. The economic depression of 1930, however, gave a setback to the movement, the societies encountered various difficulties and many of them were unable to meet their obligations in respect of Government loans. Some of the societies which deserved assistance were granted relief by way of remission in the Government dues.

During and after the World war II, however, considerable shortage of housing accommodation was experienced especially in the large cities like Bombay, Poona, Ahmedabad and Sholapur, etc., due to the influx of displaced persons from Pakistan and also due to the migration of rural population to urban area. With a view to ease the situation Government formulated a Housing scheme and appointed the Provincial Housing Board, to tackle the problem. The Housing scheme sponsored by the Government was applied to the five industrial cities, Bombay, Poona, Sholapur, Ahmedabad and Hubli. The scheme provides liberal financial and other assistance to co-operative housing societies registered before 1st July 1949 in the above cities.

The nature and extent of financial and other assistance which Government has agreed to give to the co-operative housing societies may be briefly summarised as under:—

Co-operative housing societies constructing tenements of two living rooms and a kitchen (with other amenities) or of a lesser size are given loans at 3 per cent or ½ per cent less than the Government borrowing rate, whichever is higher. These loans will be to the extent of 75 per cent of the value of the land and building in the case of tenant co-partnership society and to the extent of 60 per cent in case of other types of societies. The period of repayment of loan is 35 years. The Co-operative housing society is also given preference in securing building materials.

On account of the encouragement given by Government to the co-operative societies, much progress has been made. As against 29 housing socieites registered in the State in the year 1920, there were as many as 857 housing societies on 30th June 1951. Government has also decided to establish the Central Co-operative Housing Finance Society for financing house-building activities with a share capital of rupees one crore. In this Government will have 50 per cent of the shares and the remaining will be contributed by public-insurance companies, other co-operative societies, etc. Government will guarantee the principal and a 3 per cent dividend and this will be the first society in India of its kind. The following statistical information as on 30th June, 1951 will show the progress so far made by the co-operative societies in the State:—

Number of societies	857
Number of members	43721
Share capital	Rs. 1,70,07,308
Government loan	Rs. 88,10,282
Other borrowings	Rs. 4,41,30,287
Reserve and other funds ..	Rs. 34,97,624
Working capital	Rs. 7,34,45,501
Number of tenements constructed ..	6,000
Number of tenements under construction	2,311

Madras

In Madras the progress in the activities of co-operative building societies began as early as 1924. At that time the State Government accepted the proposal to finance building societies direct at cheap rates of interest in order to relieve congestion in urban areas, framed rules for the grant of State loans and placed annual allotments at the disposal of the Registrar for sanctioning loans to these societies. Though the co-operative societies movement began in the State as early as 1913-14, the first real step was taken by Government when it undertook to finance them. In 1947 it instructed the District Collectors to constitute Housing Committees in all municipalities and major Panchayat areas where the shortage of housing was acute. Government also asked them to select suitable house sites. Blocks of lands measuring about 20 acres in extent in which a colony of 100 houses may be established were to be selected by these Committees. In pursuance of Government orders, District Collectors constituted Housing Committees for the selection of suitable sites for the introduction of co-operative housing schemes in 75 municipalities and 198 Panchayats. Reports in respect of 55 municipalities and 151 Panchayats were received for organising cooperative housing schemes. Of these, 30 centres have been dropped either on the recommendation of the Housing Committees themselves or after local investigation by the officers of the Co-operative Department. 165 housing societies under the scheme were registered up to the end of March 1952. In the remaining cases, the organisation of housing scheme is pending with the district officers of the Co-operative Department.

Types of Societies

The societies formed under the housing schemes can be classified into four heads, (*i*) Co-operative Townships which acquire land, construct houses and also provide civic amenities to the inhabitants of the township; (*ii*) Cooperative House Construction Societies which construct houses and rent them out to members under the hire-purchase system; (*iii*) Cooperative House Building Societies which undertake the construction of houses on behalf of their members as agents; and (*iv*) Ordinary Building Societies which advance long term loans for the construction of houses by the members on sites owned by them.

(*i*) Co-operative Townships

In places where very large blocks of land about 500 to 1,000 acres are available near cities and towns which are heavily congested and where the people are willing to settle outside the municipal limits and build up a cooperative colony of their own, cooperative townships are formed. These townships will not only acquire the site, prepare the layout, parcel out lands among the members and advance money with the help of Government loans for the purpose of house construction, but will also provide amenities like road, parks, playgrounds, electric, lights, drainage and sewerage, health services, medical relief, educational and recreative facilities, etc. In short, they will discharge all the functions of a municipality in the township and recover the cost from the inhabitants of the township by a levy, corresponding to municipal rates and taxes. Such a co-operative township has already been registered at Katpadi in the North Arcot District. Another has been registered at Padavu near Mangalore in the South Kanara District, but has not commenced work.

At Katpadi, Co-operative Township was registered in April 1947. On 31st March, 1952 it had nearly 1,113 members with a paid up capital of Rs. 4.09 lakhs. The scheme envisages the formation of a new town on entirely cooperative lines between Vellore and Katpadi towns in the North Arcot District. The original plan contemplated the acquisition of about 1,400 acres and the formation of a colony of 5,000 houses. There were to be five classes of sites costing from Rs. 400 to Rs. 6,000 each according to extent. The cost of acquisition was estimated at Rs. 9 lakhs and this money had to be found entirely from the share capital subscribed by the members. The total cost of the scheme including the construction of houses and the provision of amenities was estimated at Rs. 3 crores. The State Government however, decided that the township should acquire only 400 arces, releasing about 1,000 acres of wet lands. It acquired 399.27 acres at a cost of Rs. 4.20 lakhs and got approved a layout plan providing for 1933 house sites with common amenities like roads, parks, playgrounds, etc. Up to the end of March 1952, it had completed 90 houses and 51 were under different stages of construction.

(*ii*) Cooperative House Construction Societies

The second kind of housing society for urban areas is the cooperative house construction society which is based on the co-partnership system. It acquires house sites with its share capital and constructs different classes of houses with the help of loans from Government and rents them out to its members. If a member pays the rent for his house regularly for a period of 20 years, he becomes the owner of the house. This kind of housing societies is most suitable at the present time because it facilitates the speedy construction of numerous houses by bulking the demand for materials and organising house construction under one unified control. The first society of this kind was registered at Madras in May 1947. Subsequently similar societies have been registered at Tanjore, Trichinopoly, Madura, Palamcottah, Coimbatore, Rajahmundry and Guntur.

So far 10 Cooperative House Construction Societies have been registered for the general public and 3 for the industrial workers in textile mills. Of them, the House Construction Society at Madras was the first to commence actual work, as it was fortunate in getting an extensive site of 131 acres at Adyar by private negotiations. Subsequently it acquired three blocks of land in Ayyanavaram, Adyar and Mylapore. The Madras Co-operative House Construction Society had on its rolls 922 members with a paid up share capital of Rs. 28.23 lakhs as on 31st March 1952. Its programme is to establish 4 housing colonies in different parts of the city and to build 1,000 new houses. It has completed 340 houses in Gandhinagar Colony, Adyar, and 135 houses in Venkatesapuram Colony, Ayyanavaram. It proposes to build 144 houses in Adyar II and 395 in Mylapore. It has taken up the construction of 36 houses in Adyar II. Construction work in Mylapore area will begin shortly. The Madura Cooperative Housing Construction Society acquired 148 acres near Tiruparankundram and has got approved a layout plan for a self contained colony of 524 houses. Up to 31st March, 1952, it had completed 180 houses and 95 were under different stages of construction on that date. The Tanjore Cooperative House Construction Society acquired 55 acres and has so far completed 75 houses and 20 were under construction on 31st March, 1952. The Palamcottah Cooperative House Construction Society acquired 60 acres and has completed the first colony of 134 houses. Work in respect of 36 houses is in progress in the extension area. The Guntur Cooperative House Construction Society acquired 20 acres and construction work in respect of 118 houses is in full swing in the centre. The Triuchirapalli and Rajahmundry Cooperative House Construction Societies have recently taken possession of the lands and are expected to begin work shortly.

(*iii*) Cooperative House Building Societies

The third kind of cooperative housing society is the House Building Society which is based on the individual ownership system and which advances loans for the construction of houses in a colony but instead of disbursing cash loans to members it undertakes to build houses on behalf of members. On 30th June, 1951, there were 73 Cooperative House Building Societies in Madras. They had acquired 979 acres of land and applications for the acquisition of 218 acres were pending. These societies programmed to construct 4199 houses ; and 2388 house sites were allotted to members. They completed 178 houses and 1001 more were in the process of construction on 30th June, 1952.

(iv) Coopertive Building Societies

The last type of Cooperative Housing societies is the ordinary cooperative society which is based on the individual ownership system. It provides long term loans to its members for the construction of houses. It is the simplest type and is in fact only a long term credit organisation providing members with loans from Government up to 20 years. The construction of houses is left to the members who pledge their sites and buildings as security for their loans. The bylaws of these societies povide for the acquisition of building materials and this provision is availed of by members in some cases. The ordinary type of building society which advances long term loans for the construction of houses has long been in existence in the State. Though the first building society dates back to 1913-1914 the real progress of cooperative building societies began only from 1924 when Government undertook to finance them. On 30th June, 1951 there were 205 ordinary building societies with 11,560 members and paid up share capital of Rs. 33.85 lakhs. During the Cooperative year 1950-51 Government loans to the extent of Rs. 36·26 lakhs were sanctioned to these societies. A sum of Rs. 62.59 lakhs was due to Government from these soceities on this date. This type of societies have been formed mainly in Calicut, Tirumangalam, Rajapalayam, Dharamapuri, Rajampet, Srirangam, Trichinopoly, Cuddapah, Ananthapur, Salem and Guntur.

During the Cooperative year ended with 30th June 1951, Government loans to the extent of Rs. 116.23 lakhs were sanctioned to all types of co-operative housing societies and the Government loans outstanding against them on 31st May, 1952 amounted to more than 250 lakhs and the number of houses built by all types of co-operative societies from 1924 to 1947 was 2530. During the last 5 years 3,417 more houses have been built, bringing the total number of houses completed to 5947 as on 31st May, 1952 and about 1800 more houses were under different stages of construction on that date. The total number of societies in the State on 31st May, 1952 was 297 with a share capital of 138.4 lakhs.

Rural Area

Till recently co-operative housing schemes were confined only to urban areas. But now the scarcity of housing accommodation is as acute in some villages as in towns. A beginning has been made with rural housing schemes in certain selected villages and in some weavers' cooperative societies schemes have also been drawn up for housing Harijans.

In April, 1950, the State Government sanctioned a rural housing scheme to enable solvent villagers to construct "pucca" houses with durable materials with the aid of long term Government loans repayable in 20 years. As houses in rural areas have less saleable value than those in towns, their value as security for loans is less so that the conditions governing the grant of loans to rural housing societies are somewhat strict. 40 rural housing societies were registered up to the end of March 1952, and they had on their rolls 775 members with a paid up share capital of Rs. 1.13 lakhs. 42 loans amounting to Rs. 1.66 lakhs had been sanctioned upto this date. A sum of Rs. 10 lakhs has been provided in the budget for 1952-53 for advancing loans to rural housing societies.

An attempt has been made to solve the rural housing problem among weavers through Weavers' Cooperative Societies. Well established weavers' societies with adequate reserves have been selected for this purpose, and it is proposed that they should acquire suitable house sites in the outskirts of the village, construct houses at about Rs. 2,000 to Rs. 3,000 each and let them out to their weaver members on the hire purchase system. After regularly paying the monthly rental for a period of 20 years the members become the owners of the houses. One half of the cost of the scheme is provided by the society out of its funds and the initial deposits made by the applicants and the other half is obtained as 20 year loan from the Government. The first attempt to provide housing colonies for weavers was made in Yemmiganur which has the biggest weavers' society in Madras. Taking advantage of its exceptionally strong financial position, the scheme was introduced there first. The society acquired 54 acres of land on the outskirts of the village and got approved a layout plan providing for 100 houses with common buildings like a community centre, handloom factory, dye-houses etc. Government sanctioned a loan of Rs. 2 lakhs and it was supplemented with its own funds amounting to Rs. 5.35 lakhs. The Pedakandala Weavers' Cooperative Society has completed a colony of 20 houses with the aid of a Government loan of Rs. 22,750 and the Ondipudur Weavers' Co-operative Society, which was sanctioned a Government loan of Rs. one lakh, has completed 32 houses and 4 more were under construction on 31st March, 1952. Eight more weavers' societies have been sanctioned Government loans for this purpose.

As regards Harijans, it was proposed to provide them houses on a subsidised basis, meeting the subsidy out of the Harijans Welfare Fund. A five-year scheme of rural housing for the Harijans was drawn up by the Registrar of Co-operative Societies. Under the scheme 50 centres will be selected in the State each year at the rate of 2 per district and a colony of at least 30 houses will be set up in each centre. The scheme will be worked through the existing cooperative credit societies into which the Harijans will be admitted either through the existing societies for the scheduled classes or by organising separate societies exclusively for housing. Each house is estimated to cost about Rs. 1,500, one half of which will be given as a free grant from the Harijan Welfare Fund and the other half as interest free loan, repayable over a period of 20 years. Provision for public amenities such as roads, playgrounds, drinking water wells, etc., is to be made by Government from the Harijan Welfare Fund. On account of the financial burden the scheme imposed on Government, it was dropped. A modified scheme, however, for the formation of housing societies for Harijans is under the consideration of Government. It contemplates the formation of 5 housing societies in each district every year for a period of 5 years and the issue of loans repayable in 3 years for the construction of cheap houses costing about Rs. 150 each. State aid is given to the Co-operative Societies in the form of loans, land acquisition staff, making arrangements for the supply of essential building materials, free service of departmental officers to work as Secretaries for a period of one year, etc.

Uttar Pradesh

In Kanpur, the Christian Co-operative Housing Society is the only society which has been trying to make some headway in this direction, but has not been able to undertake actual work uptil now, on account of the want of funds. In Bullandshahar, however, a society has been successfully formed for the purpose of erecting houses for middle class Government servants on co-operative lines. It is reported that altogether there are 136 societies in U. P.

Few attempts have been made to use co-operative building societies as a means to provide housing for the workers. An approach to the question along co-operative lines would not only provide hygienic houses and remove congestion in industrial centres but foster thrift and self-help among the workers. The Committee on Co-operation (1940) thought this was an enterprise which deserved all the encouragement and support which the Government, Co-operative Department, the Local Bodies and the employers could give by forming co-operative housing societies and permitting them to build in areas laid out and prepared for housing schemes. Employers of industrial labour may also assist their workers to build their own houses by making free grants of land and supplying building materials free of cost or at nominal rates or by advancing money at lower rate of interest. But best results can be secured by the joint action of the workers and their employers in the promotion of housing schemes.

To accelerate co-operative building activities the following concessions in addition to those already indicated are required:—(1) Enhancement of individual credit limit:—In the case of house building societies, loans to members may be permitted up to eight times the share capital and the maximum loan permissible to any individual member may be fixed at Rs. 20,000 but this limit should not preclude a member from asking for a more expensive house so long as he pays to the society all the moneys in excess of this amount in advance and the entire building is held as security by the society. (2) Reduction in the rate of interest—The Government should be able to grant loans to co-operative societies and even to corporate house building schemes, which are not profit seeking, at rates not more than their borrowing rates plus a small charge of one-fourth per cent to cover their expenses. The loan should be spread over a long term of years.

Government Advances and Loans

As mentioned earlier, the few societies which exist in Bombay and Madras are almost confined to the upper middle class people, who can afford to invest substantial amounts of money themselves and are also educated and enlightened persons. For them, it may be admitted, the economies effected by the collective purchase of building materials may sometime be a sufficient inducement ; but the lower middle class or the poorer people cannot be expected, in these times of high building costs, to make houses for themselves in that way. With the example of England, Germany and the other foreign countries before us, where, in spite of the popularity of co-operative methods and the advance of education, etc., co-operative building societies could not prosper among the ordinary people till profuse State aid was extended, it is not at all strange that co-operative tenants have remained more or less utopian in India up to the present time. Considering the great benefits that co-operation confers on the social, moral, economic and political conditions of the poorer people, the desirability of its encouragement among the poorer people in India, through a proper system of advances and long period loans on behalf of the Government, cannot be overemphasized. The All-India Co-operative Planning Committee has recommended that a Central Co-operative Housing Society should be formed in each State and that its function should be to grant long term loans to housing societies for the purchase of house sites and for the construction of houses and to purchase building materials on a large scale from wholesalers and supply them at reasonable rates to the housing societies.

A Conference of the representatives of Banks, Insurance Companies and Co-operative Institutions was held in 1951 in Bombay. Mr. V. L. Mehta, Minister for Finance, Village Industries and Co-operation, presided over the Conference. The discussion centred round the question of how to find the money required by co-operative housing societies. The concensus of opinion having been that there was urgent need for a separate co-operative housing finance body for Bombay State, a committee with Mr. P. J. Chinmulgund, Registrar of Co-operative Societies, as Secretary, was set up to examine the question in detail and report thereon.

CHAPTER LXIX

THE NEED FOR A PUBLIC HOUSING POLICY

No attention was paid to the evolution of a housing policy before the first World war. The war and its aftermath produced such a radical change in the situation that the housing problem of to-day may be said to date from 1914. Tremendous influx of rural population put great pressure on urban accommodation. Housing was expected to be taken care of by private enterprise. The housing standards too were generally low. The public conscience was not highly developed and they did not consider it profitable to devote substantial resources for the purpose of re-housing people who were already some how or other living in some kind of shelter. Improved housing standards and town planning were not regarded as important.

The acuteness of the housing was felt during the close of the nineteenth century and though some action was taken by public authorities, it aggravated rather than abated the creation of slums. By the end of the century the public conscience had been awakened and increasing attention was devoted to housing. The first World war put a stop to building in all belligerent countries, as the cost of materials, labour and land shot up. Although there were occasions before the war when the supply of housing was inadequate in quantity as well as in quality but never before had the problem of finding shelter of any kind been so vast or so acute.

The central problem of housing policy is to achieve greater stability of employment in the building industry so that the industry, besides reducing cost of adequate housing, will also contribute to the achievement of full employment throughout the economy. The need for housing arises out of the demand for houses from people who can not afford to meet the costs of their housing.The need for housing, some people will maintain, is a transitional problem and can be solved as soon as scarcity of labour and building materials is removed. They will argue that the private enterprise has always catered to the needs of housing in past and will continue to do so in future. They do not realise the necessity on the part of Government to prescribe a programme for the number and type of houses to be built. While it is admitted that the building of comparatively few houses might reduce the housing shortage to some extent, it is the necessity to provide housing not only to those who demand it, but to the people who are not paying prices or rents high enough, which will require the development of a State housing policy. A State housing policy should reduce housing costs and grant assistance to families unable to meet the costs of their housing needs. While public action in the field of housing is essential, the means of attaining housing policy, *i.e.*, construction of houses by Government through financial grants, through rent or income subsidies or through co-operation with or control of the building industry will vary from country to country and from time to time.

In the present-day world where effects of monopoly and of unemployment are so widespread and where distribution of income in all forms does not correspond to the accepted principles of social justice, the need for a special public housing policy can hardly be debated. Furthermore, the following reasons are put forward in support of a public housing policy:—

(1) Housing activity is vital to any policy directed towards stabilising the level of employment in an economy. With the building of more houses, jobs for men are created and it simplifies the problems of full employment. In fact the industry is so large that its stabilisation is vital to the policy of stabilising general level of employment.

(2) The present day standards of housing being unduly low, a housing policy contributes to the raising of standards of living and to an improvement in real incomes by securing the production of more houses at reduced cost.

(3) Provision of better housing secures the benefits of good health, moral, welfare, efficiency and aesthetic appearance of society.

(4) The shortage of housing is so acute and costs of housing are so high that all the resources of public planning should be brought to the aid of normal private building activity in a concerted effort to overcome these difficulties.

(5) The size of the investment involved in houses in relation to the incomes of purchasers, the long term risks attaching to the investment, and the imperfections of the mortgage market, all warrant special attention being given to the problems of finance of housing.

(6) Provision of alternative houses at reasonable rents and prices will result in clearance of slum areas which would otherwise continue as a profitable form of investment.

(7) The product of the housing industry is an almost completely immobile asset. The community needs flexibility of its resources including mobility of labour to maintain efficiency. It should be prepared to assist in meeting the costs of this flexibility.

Public housing policy developed first in Europe and later in the United States, Canada, Australia, New Zealand and other countries. Only in Europe was public housing policy responsible for a substantial proportion of total housing built in the inter-war period. In other countries it was beginning to play a more important role towards the end of the period, for instance, in the United States during 1939 and 1940. In most countries private enterprise has not only remained the most important source of building but a source of supply also. It has, however, failed to provide houses for lower income groups whose needs have yet to be met. Public housing policies depended principally on financial support from public authorities in the form of subsidies and credit facilities. Subsidies were granted in the form of lumpsum payments or of annual payments for more or less lengthy periods. While the former is designed to pay part of building costs, the latter were intended to cover part of the annual charges of the building. The authorities assisted the builders to raise capital in more advantageous forms. In addition to direct financial assistance public authorities in some cases also encouraged housing by exempting dwellings from taxation, by providing building with sites on easy terms or by endeavouring to promote a reduction of building costs.

Though the overall housing shortage was substantially reduced as a result of intensive public and private building between the two World wars, much progress still remains to be achieved. The second World war gravely accentuated the problem of housing. The urgency of providing housing has been accepted in all countries and public opinion will insist on giving some priority to housing schemes. The housing problem can not be solved by private enterprise as it has provided housing to upper income groups but has failed to discharge its obligation to the lower strata of the society. What is actually needed is to supply houses to a section of people whose needs still remain to be met by public enterprise. While the policy of private authority should be directed to design best houses for those who cannot afford them for themselves by employing their own architects and workers, the private enterprise can undertake actual construction of houses in accordance with public plans and can also tender for supply of building materials. The housing standards should conform best to the needs of consumers. The housing problem can only be solved by energetic action on the part of Government.

It is gratifying to note that Government, local authorities and employers are all now alive to this question in India. Steps that are being taken by the Central and State Governments, employers, etc., have been described in other chapters.

CHAPTER LXX

RESPONSIBILITY OF PROVIDING HOUSING FOR WORKERS

The housing problem in its present actue form is rooted in the process of industrialisation and development of urban areas. This question is a ticklish one and different authorities have given different views. Their views are summarised below:—

The Indian Industrial Commission (1916—18)

The Commission drew pointed attention to this problem and referred in particular to the conditions in Bombay and warned that if the housing of workers was not tackled energetically for the country as a whole, the almost insurmountable difficulties that existed even then in Bombay would repeat themselves in other industrial towns which were fast growing. The Commission suggested that the following principles might be adopted in dealing with the problem:—

(*i*) the housing of industrial labour was not to be confused with housing problems in general, although it was to some extent bound up with the housing of the poorer middle classes;

(*ii*) the problem was one of the great urgency and justified resort to exceptional measures; and

(*iii*) the onus of actually providing dwellings for industrial labour could not be laid upon the individual employer, but the employer must (save where he had undertaken housing himself) be called upon to assist in the solution of the financial problem.

Royal Commission on Labour (1929—31)

According to the Whitley Commission, the municipal councils had done very little to meet the problem. According to it the action taken by the parties concerned—employers, Government and local bodies—was in inverse ratio to their responsibilities. "Employers have done most, local bodies least and that the main responsibility for housing policy lies with the Government and with the local bodies. The municipal councils are primarily responsible for the health of their citizens and that responsibility cannot be discharged in the industrial cities unless a vigorous attempt is made to improve housing." The Commission did recognise that the resources of the mu icipalities were limited and the raising taxation for housing was not a simple task. It also felt that the municipalities 'were ill-equipped on the executive side for tackling the complex housing problem. The conception that the provision of good housing is the duty of the community is a comparatively new one in any country. The Commission was, however, constrained to observe that the municipalities had failed to use their machinery and power to control layout and erection of new buildings.

According to the Commission, although the main responsibility for housing policy lies with Government and the local bodies, industrial development has enhanced the difficulties of the housing situation in numerous areas. Many employers have in fact carried out the great majority of the housing schemes so far put into operation. Some of the admirable schemes pushed through by employers have effected a great improvement in the standards of health and well-being of their fortunate occupants, whilst employers must also have realised the economic advantages obtained from more contented labour force through an increased efficiency. It is obvious, however, that so far only the fringe of the problem has been touched. With the best intentions industrial concerns have been unable to provide for more than 10 to 40 per cent of their employees, and it is unlikely that even the most prosperous industries could house all their workers without the active assistance, both financial and otherwise, of Government and municipal authorities. The accommodation provided by employers has in most cases to be given rent free and even where rent is charged, a direct economic return is seldom obtained on the capital outlay.

Co-operation between Government and employers

Important causes contributing to the present situation are the lack of coordination between the parties concerned and the apparent doubt as to where the responsibility should lie. The efforts made by some employers have encouraged a tendency to leave the whole problem to them, whilst some municipalities look to Government to raise from the people as a whole, funds which should be found locally. The position demands immediate attention, not only from Government and local authorities, but also from organised industry and the public. Every State Government should take the initiative by making a survey of its urban and industrial areas in order to get exact information as to their most urgent needs. Each Government should then arrange for a conference with the interested parties to find out practicable schemes and the methods by which their cost could be shared. Many industrial concerns would be prepared to co-operate with the authorities in any scheme in which the financial burden was shared. Where suitable Government land is available, the Commission thought that Governments should sell or lease it to those who agree to build houses within a specified period. The Commission suggested that Governments should announce their willingness to subsidise in this or in other ways, housing schemes advanced by employers. Such action neither removes responsibility from the Government nor from public authorities nor prevents them from taking independent action. At the same time it would ease the burden, particularly in smaller industrial areas, and would promote that combination of public and private effort without which it will be impossible to make progress. The whole question depends primarily on whether Government is able to assist, for the cost involved is the crux of the whole problem.

Health Survey and Development Committee's views (1946)

According to this Committee a housing programme can only be carried out successfully if Government, local authorities and improvement trusts are prepared to enter the field with large scale housing schemes and induce private interests to more satisfactory performance, by financial and technical aid and the rigid enforcement of better standards. Government and public authorities can perform the following functions:—

(*i*) the planning, execution and regulation of housing programmes including participation by local authorities and improvement trusts in house construction and maintenance ;
(*ii*) the grant of financial assistance by long term lease at low rates of interest, or grants-in-aid ;
(*iii*) the prescription and enforcement of standards ; and
(*iv*) the promotion of housing research.

According to the Committee, upon Provincial Governments must rest the primary responsibility for dealing with the problem of housing and town and village planning and for developing and executing housing schemes within their respective areas. This cannot be evaded by leaving it to private building interests or employers of labour. It may, of course, be delegated under suitable conditions and in defined areas, to local bodies or public authorities such as improvement trusts. The Committee was of the view that every available agency must be utilised if a comprehensive progamme is to be planned and executed within a reasonable time. But the Government concerned must be responsible for ensuring co-ordinated progress and for making or encouraging others to make a determined effort to provide more and better houses for the people. It recommended the establishment in each province of a Ministry of Housing and Town and Village Planning charged with the responsibility for the preparation and execution of new housing and housing improvement schemes, slum clearances and urban and rural planning. Only thus would this urgent problem receive the undivided attention of a single department and the determination of policy by Government at the highest level.

The Committee realised that the Provincial Governments would not be able to provide the finance necessary for a bold and comprehensive housing programme. It, however, did recommend that the Provincial Government should establish a statutory body under the direction and control of the Ministry of Housing and Town and Village Planning with financial resources and power to plan and execute a province-wide house construction.

The Committee also considered that just as in Europe local authorities have been responsible for the control of State-aided housing, they should be so in India. It suggested that loans or grants by provincial governments to finance hosuing schemes should be administered by local bodies subject to such rules and regulations as these Governments may prescribe. As in England, each local authority should be made to contribute a suitable proportion of the cost of such schemes. It felt that the Ministry of Housing and Town and Village Planning should deal with local organisations which might be concerned with house planning.

As regards improvement trusts, they could perform the most valuable functions in connection with slum clearance and the re-housing of dispossessed inhabitants in large towns and cities. Slum clearance involves the re-building and re-planning of the cleared areas. The Committee advocated placing the work of re-building in the hands of the trust and not in the hands of private enterprises. Few of the trusts have adequate technical advice in their work of planning and housing construction and so the Committee recommended that each improvement trust should employ a technical officer trained or experienced in town planning. With the strengthening of their general engineering and pulic health engineering staffs, the local authorities should be able to exercise better supervision than in the past over the housing schemes within their areas.

National Planning Committee

This Committee dealt with housing for all; it did not limit itself to industrial workers. However, its views are authoritative and interesting. According to this Committee there are three alternatives which are not necessarily mutually exclusive. Each has its own peculiar fitness for discharging that obligaton .

(1) There is, in the first place, the State or the Nation as the whole, who can shoulder responsibility. In so far as housing is a public utility service of national importance, the central authority of the country must necessarily bear its share of this obligation though the burden need not be shouldered entirely and exclusively by that authority.

On the other hand, the Central Government by its very nature, cannot actually provide the service, even if it shoulders some part of the obligation since it is essentially a local concern. Housing in different parts of a country like India, for climate and other reasons, must necessarily vary in structure and material ; in the accommodation as well as equipment, in the design and layout, in accordance with the purpose for which each building is to be utilised. This means responsibility of the local authorities, whether State Government or local bodies, like a municipality or district board, or even village union.

The actual agency for constructing or providing houses may thus be the local authority, *e.g.*, in respect of a basic plan, situation, technical design and standard equipment, together with certain prescribed amenities or services by the State or Central Government as the case may be.

(2) The local authority or the municipality or district board will not find itself equal in all cases to the task in all aspects. Some responsibility must also, therefore, be cast upon those elements in the society, which stand to derive some benefit from people using the housing they provide. Their benefit may be not so much by way of the rent or return on their investment as in the shape of the additional or surplus value infused in their work which the workers in their employment do.

The employer is thus an outstanding class on whom responsibility may quite fairly be laid for providing necessary housing accommodation, at least for his immediate operatives whether manual labour or intellectual worker.

There are obvious advantages as well as limitations in making the employer responsible for providing the housing accommodation for his workers. The main advantage lies in regard to the saving of time by locating housing as near the place of work as possible, designing it to fit the peculiar needs of the given operatives serving or equipping such accommodation with the ordinary amenities, utilities and services as may be prescribed as part of the National plan. On the other hand, any housing that an employer provides can only be for large scale factories or workshops. The relatively small scale business employing only five or ten people will not find it economical or convenient to provide such housing for each employer's staff whether manual or intellectual. Besides, if such housing is provided compulsorily, as a legal obligation thrown upon the employer, the latter would demand that so long as a worker works in his employ, he must occupy the housing provided by the employer. The workers' freedom of movement will in consequence be affected. The moment the worker ceases to be in the employ of the party providing the accommodation, the latter would be free to eject such a worker, whether or not he has found an alternative accommodation. The worker thus gets tied up to a place ; and as such his general tendency is to dislike living in quarters provided by the employer, and this quite apart from the point of view of rent.

(3) An alternative agency to provide housing is competitive private enterprise. This may provide fancy structures varying according to the taste and means of individual house-builders. If housing is part of a National plan, it cannot be left to the vagaries of the private enterprise, however much controlled by local or national regulations.

If housing is provided by private agency, of the type that a capitalist employer usually is, he would seek his utmost to make the return equal to the investment over a relatively short space of time. The economic rent expected for such housing by a capitalist house-builder (or employer) will take into account only what he would call a fair return on his investment ; and that would be arrived at by comparison with the ordinary interest rates in the money market for investment in corresponding securities. This, in its turn, will be utterly regardless of the ability of the working class tenants to pay such rent.

Moreover, the employer, as already remarked would provide housing only for his immediate employees, who do not exceed 7 per cent of the total population. That section of the community, therefore, which is not employed as wage-earners, and which consists of professional elements working for the public at large, and not for any definite employer, or the relatively older people, the retired, or superannuated, not actively engaged on work, will not be served by such agency. Their need for housing must also be attended to ; and that can only be done by some form of State enterprise, whether conducted by the local government, municipality, district board or some other non-profit making society, like a co-operative or statutory authority.

The State, whether Provincial or Central Government, is already a large employer ; and will, in the near future, become so in an ever increasing degree, especially when some key industries are nationalised. Municipal and other public services, like Transport and Communications, employ thousands of teachers, postmen, medical men, police, railway and tramway operatives, and others of that kind. For its own employees therefore, the State must set a model of housing which must not only be not inferior to any similar facility provided by a private employer, but which must correlate in point of the return demanded from the tenant to the ability of th e latter, a measured by his income rather than to the actual cost of the investment or the market return on similar investment on other enterprises.

(4) If housing is provided by private enterprise only, for purposes

of letting out, that section of the community which does not care for owning house property, but nevertheless seeks a reasonable fixity of residence and also a high standard of amenities, which also has an eye to the beauty of situation, convenience of location and the like, must have some say in regard to the material, design, equipment, and above all, fitting in with such town planning measures as may in any case be adopted. The responsibility thus is not exclusive of any single individual, corporation or authority ; and the State will have to take, in one aspect or another, an increasing share in providing, regulating and controlling the House service as a whole.

The Labour Investigation Committee

The Committee, which examined housing in about 45 industries expressed the following views: " The main desideratum is the enactment of an Industrial Housing Act by the Government of India providing for the ceration of an All-India Industrial Housing Board and Provincial or Regional Boards. We presume that there will in future be a systematic planning of industries under the auspices of Government and that once it is decided to allow an industry to be set up at a particular place, the Housing Boards would deal with the construction of workers' quarters according to a pre-arranged plan. The proposed Housing Boards should be of a tripartite character. They should be left to decide in each individual case whether the financing of housing should be a duty of employers or Government or both. Thus, generally speaking, if an industrial establishment is set up in a rural area, or in an out of the way place, where land and raw materials are cheap and where no alternative private housing is available, the employer might be asked to house the workers at his own cost. The position would be different in urban areas owing to the scarcity of land sites. The State should here accept the direct responsibility for the housing of workers and provide capital finance for the same. We are of opinion that the capital outlay on workers' houses should be raised by Government and advanced to the All-India Housing Board. This Board will co-ordinate the activities of Provincial or Regional Boards and advance funds to each according to its needs. The recurrent expenditure-interest, depreciation, maintenance, repairs, etc., may be distributed between the employers and workers, the latter paying it in the form of monthly rent which should in no way exceed a certain percentage of earnings, say 10 per cent."

Industrial Housing Sub-Committee of the Standing Labour Committee (1946)

This Committee was of the view that in case of factories located in rural areas the responsibility for housing must be solely that of the employer. He should be asked to provide living accommodation of the prescribed standard for the labour he employs in his factory within a period of 10 years. The Committee recommended that this should be laid down as a statutory responsibility. One of the members representing the State did not, however, agree with this recommendation. He felt that as the Central and State Governments, not to speak of the employers and labour representatives themselves, are anxious to decentralise industry and prevent over-concentration in urban areas, employers should be induced to locate their industries in rural areas. He was afraid the Committees recommendation would have exactly the opposite effect and did not see any reason why a heavier responsibility in respect of liability to house his labour should be thrown on the rural employer than on the urban employer, particularly as one of the advantages of decentralisation would be that the villagers could work in factories and yet live in their own houses enjoying their own domestic and rural atmosphere. For this reason he considered any legislation in regard to housing in rural areas should be permissive rather than mandatory.

In addition to a subsidy the Committee also recognised that houses must be constructed as cheaply and as efficiently as possible and the fullest possible use made of modern large scale methods of production, bulk buying of raw materials and standardisation of parts. Modern methods were only possible if supplies were manufactured on a big enough scale duly programmed to ensure the advantages of mass production. Neither the control of materials nor the mass production of fittings and supplies could be undertaken unless a national building programme was properly planned and progressed and firm bulk orders for definite quantities placed on a definite time table.

The U. P. Housing Committee (1947)

According to this Committee, the construction of the house should actually be the responsibility of the employers. The difficulty was that the investment did not give sufficient return to the employer as the rent chargeable should be between Rs. 6 and Rs. 10 per month. It, however, recommended that the development cost should be borne by Government and the actual area of land required for the construction of quarters should be leased out to the employers on rent based on the actual cost of acquisition and development. The Committee also suggested that Government should advance money to the employers at low interest, say, ½ per cent below the Government borrowing rate. It was also of the view that Rs. 10 per month should be the maximum rent chargeable for the standard house, but in no case should the rent exceed 10 per cent of the workman's earnings. The difference should be contributed by the employer in the shape of house rent allowance added to the workers' wages.

Madras Provincial Housing Committee (1947)

The Committee was of the view that measures should be devised not only to ease the situation in the immediate present but also to evolve a comprehensive long term policy so as to meet the needs of the increasing population permanently and to prevent the recurrence of shortage of housing as at present. Such long term policy should have as its objective construction of hygienic houses in sufficient numbers and of adequate size in 'sanitated' areas (*i.e.*, areas provided with hard-surfaced roads, water-supply, lighting, drainage and sewerage) equipped with all the facilities necessary for community life, such as reading rooms and clubs markets and recreational facilities such as sports grounds, theatres and public parks.

The Committee endorsed the following recommendation of the Bhore Committee. " It is the responsibility of the Provincial Government to deal with the problem of housing and executing housing schemes. This responsibility has of course to be shared with local bodies or public authorities such as Imrpovement Trusts. But the Government must be responsible for ensuring co-ordinated progress and for making or encouraging others to make a determined effort to provide more and better houses for the people."

According to the Committee, combined activity by the Government, local authorities, improvement trust, etc., will be necessary for the discharge of this responsibility and it will also be necessary to stimulate co-operative, commercial and private enterprise side by side, with those of public authorities by affording financial aid, technical advice and rigid enforcement of better standards. Co-operative and private enterprise is likely to be forthcoming in the case of middle income groups but is not likely to be helpful in the case of lower income groups without generous outright State aid.

Industries Conference Resolution

As regards Housing the Resolution passed by the Industries Conference in December 1947 was as follows:—

> " That, as a first step towards improving the standard of living of workers immediate attention should be devoted to the problem of housing of industrial labour ; the cost of such housing should be shared in suitable proportions between the Government, employers and labour, the share of labour being given in the shape of a reasonable rent."

Conference of Chairmen, Improvement Trusts and Development Boards (1948)

This Conference was held at Delhi in June 1948. The Committee was of the view that the provision of adequate housing accommodation, specially for the lowest income groups is the paramount duty of the State, and that there must be centralisation in regard to housing with plans to be put into execution. The State should grant the highest priority for the movement of building materials, namely, steel, cement, slab coal for brick burning under allocation to various Provinces according to needs previously screened by the Central authority. A survey of the housing conditions in rural, urban and metropolitan areas should be made with a view to eliminate unsound and unhealthy houses. The State should also endeavour to keep the cost of building material as low as possible and should fix lower tariff and freight rates on essential materials like cement, steel and coal. It also suggested that a High Power Committee consisting of engineers and architects should be set up to draft a National Building Code and model building regulations for the guidance of local authorities, and that legislation should be undertaken to prevent creation of new free-holds by the State or local bodies in regard to their properties. It also thought that in order to provide minimum standard of housing accommodation for the lowest income groups, the State will have to provide subsidy out of the funds raised by taxation or loans or a combination of both.

Bombay Government have recently thrown more responsibility on the employers for housing their workers. They have passed an act "Bombay Building (Control on Erection) Act, 1948," under which permission for extension of industrial premises is granted only on the condition that the employers will provide housing for 60 per cent of the labour to be employed on account of the expansion of the industry concerned.

Constitutional position and recent steps

The subject of housing is not specifically mentioned in the seventh schedule of the Constitution of India which deals with matters coming within the purview of the Union and State Governments. In so far as housing for industrial labour is concerned, Item 24 of List III may be said to cover it because it deals comprehensively with the welfare of labour. That would bring the matter in the Concurrent List with which both the Union and the State Governments are concerned. The residuary power in relation to subjects not mentioned in the Concurrent List or the State List, however, vest in the Union Government. As such the Centre may be said to be directly concerned with the subject of housing in general. In these times, the State cannot afford to confine its role in this field to planning and regulation. Private enterprise is not in a position to do the job so far as low-income groups are concerned. They cannot afford to pay the economic rent for housing accommodation of even the minimum standards. The State has, therefore, to fill the gap and take up the supply of houses as a part of its own functions. This would involve a large measure of assistance which may take the form of subsidies on a general scale and the supply of loans on a somewhat low rate of interest. In view of the gravity and vastness of the problem and the financial condition of the States, the Central Government have accepted a large measure of responsibility for financing housing programmes chiefly for the provision of houses for industrial workers. The Government of India's recent Subsidised Industrial Housing Scheme covers the above measures of assistance but the Central and State Governments, employers and the workers have all to play their part. Provision is also being made to find funds for middle-class housing schemes, preferably through co-operative building societies. Amelioration of conditions of housing in rural areas also is engaging the attention of some State Governments.

CHAPTER LXXI

VILLAGE AND TOWN PLANNING IN INDIA

Historical

Towns, and indeed the whole face of a country's landscape, are the outward and visible signs of the inner and spiritual grace of the community. India has great towns, each portraying different aspects of her soul; Banaras: religion and education, Allahabad: education, Kanpur: industry, etc.; but the most significant manifestation of Indian philosophy is the wonderful network of villages stretching throughout the length and breadth of the country. Throughout India there are ruined cities—many of them very beautiful. In the ruins of the ancient cities of Sind (now in Pakistan) one finds much of tremendous interest to present-day India. Ruined cites, Mohenjo-Daro and Harappa, built between 2000—3000 years B. C. with their long vistas, big avenues and streets, sewerage sysem, etc., all testify to the perfection of the ancient builders. How did this enlightened town planning and housing come into being? Obviously because the builders had vision and were inspired by a sound social philosophy. In the ancient Vedic writings many excellent Town Planning precepts are laid down and a strong appreciation is shown of the importance of keeping first things first, for example, " First lay out the town and then only plan the houses" and again "First plant the trees and erect the premises thereafter; otherwise they will not look graceful and seemly." When Lord Krishna gave the directions about the planning of his capital " Draravita " he referred to the orientation of buildings, the placing of triangular and quadrangular plots at the junction of roads and to the selection of building plots and the placing and spacing of buildings. Indian literature frequently contains discussions on the planning of villages and towns, division of the land, selection of the site and examination of the soil, which show knowledge and commonsense. From historic evidence it can be proved that the influence of this remarkable wisdom in the administration of municipal affairs spread westwards from India. Between 1746 and 1146 B. C. Babylon was ruled by Kassites, an Aryan race who spoke Vedic Sanskrit. The Aryans who migrated from the East to the West at that time in history spent long enough in India to acquire a rich experience in the civic arts, including architecture, as well as the elevated spiritual culture reached in the *Rig Veda*. Within 600 years of the Kassite rule in Babylon the Jews were taken there into captivity, along with the prophet Ezekial, then 25 years old, who maintained the morale of the exiles by planning a new Capital City for them.

The country, however, passed through many vicissitudes and was over-run by invaders.The art of village and town planning was, therefore, lost sight of for centuries and as already indicated the problem was accentuated owing the haphazard growth of industrial towns. In 1915, however,Patrick Geddes, an elderly Scots sociologist and town planner, was commissioned by some of the Indian Rulers and British Governors to give advice on Town Planning. Between 1915 and 1919 he published at least 50 reports, all of then full of appreciation of the vitality and beauty of Indian towns and of inspired commonsense in regard to their modernization and development. Extracts from these reports were published in 1947 by Lund Humphires under the editorship of Miss Jacqueline Tyrwhitt. This inexpensive unpretentious volume called *Patrick Geddes in India*, is full of advice which is technically sound and at the same time full of a kindliness which is almost unbelievable in these days when in the name of economics, human activities have become cheapened and harshened.

Recent Developments

The initiative for the town planning movement in India was taken by the Government, " from the top," instead of coming " from below " as in England where the lead for reform in town and country planning was taken by public and private institutions, the authorities following it up with the necessary enquiries and legislation.

Village planning

Most villages in India have grown up in a haphazard manner without any attempt being made to regulate building construction. In many States the houses are built with little relation to one another and without any consideration for the requirements of sanitation.

Planning in urban areas

Progress in town planning has been extremely slow. In some of the larger cities, Improvement Trusts have been working for some considerable time. Although their specific purpose is to assist in the planning of these cities, the results achieved have been limited.

In Madhya Pradesh, a draft-Town Planning Act was prepared and the Bombay Town Planning Act of 1915, although rather out of date, was taken as the model. Although the State of Madras is unique in having an elaborate Town Planning Act, as well as a Public Health Act which also contained provisions relating to town planning, the actual standard of performance is not satisfactory Details about Improvement Trusts have been given in the next chapter.

Nature of the difficulties

In the country as a whole, the question of town and village planning has failed to receive the attention it deserves. While attempts have been made to regulate the growth of certain cities and to deal with slums and overcrowding by creation of improvement trusts, the number of these trusts is so small and the success achieved by them has been so limited that the total effect of such planning has been negligible. Industrial concerns have grown haphazardly in residential areas and slums have often grown around these industries.

The census of 1941 revealed an accelerated rate of urbanization in India and this tendency received further impetus during the second World war. It is now anticipated that new large-scale industrial developments, the active provision of agricultural operations on a wide basis and the execution of large public works will in all probability help to create new townships and settlements and thus further the process of urbanization. It is therefore, of paramount importance to regulate the growth of towns in accordance with the principles of sound town planning as well as to make a determined effort to eradicate existing slums and prevent conditions in which they can again grow and thrive.

There are, unfortunately, serious limitations to the improvements that can be effected in regard to existing built-up areas. These have grown up over the years and it will not be easy to demolish and rebuild them. Tradition, prejudice, ignorance, a conflict of interest between the community and private individuals and the enormous expenditure involved are factors to be reckoned with. At the same time, unless measures are taken to retrieve the errors of the past and to ensure that at least the new cities, towns and villages are planned on sound principles, the problem created for the future will be even more serious than that which faces India today.

Health Survey and Development Committee's views

The Committee of highly competent experts, known as the Health Survey and Development Committee, appointed in 1946, outlined a comprehensive programme in the fields of planning and of housing. The Committee considered it essential that a Ministry of Housing and Town and Village Planning should be established in each State, since planning involves co-ordinated action by various departments, such as those dealing with land, agriculture, industries, public works, irrigation, local self-government and health. At the national level, it was suggested that a co-ordinating expert in town planning should be appointed.

Legislation should be undertaken in all the States on a fairly uniform basis and should include within its scope both urban and rural areas. The Central Government should therefore draw up model legislation and recommend its adoption by the States or even, with their approval, seek the enactment of an all-India Act.

All State Town Planning legislations should include, among other provisions:

(*a*) The reservation of land in and surrounding towns within certain notified limits, in order to prevent its development in a manner incompatible with the principles of town planning;

(*b*) the prevention of "ribbon development," *i.e.*, the growth of a town along a highway;

(*c*) the requirement that local authorities, improvement trusts, building societies, industrial organisations, private estate development concerns and also government departments should submit all schemes for land development or for slum clearance to the Provincial Ministry of Housing and Town and Village Planning for previous sanction.

The Ministry of Housing and Town and Village Planning in each State should be able to call upon the services of a technical expert, who could be called the Director of Town and Village Planning. The State Director should have, in the beginning, three Regional Assistant Directors in the larger provinces, their number being reduced in small States. The duties of the Director would be, among others, the following:—

(*a*) To draw up master plans for such local authorities as may ask for them;
(*b*) to determine, on his initiative or at the request of individual local authorities, the area under their jurisdiction in which the development of land should be controlled;
(*c*) to advise other government departments, improvement trusts, local authorities, registered housing co-operative societies and other organisations interested in town planning and housing on the schemes they propose and to draw up schemes for them;
(*d*) to examine all schemes submitted to the Ministry for approval under the provisions of the proposed legislation and to advise the Minister on them;
(*e*) to inspect schemes during execution and on completion in order to ensure that they are carried out on approved lines.

The establishment of improvement trusts for dealing with large scale slum clearance and rehousing was considered necessary in all the large cities in India. However, the responsibility for enrforcing the law with regard to building construction, drainage and water supply in the developed areas should rest with the local authority. The Committee recommended the appointment of public health engineers at three different levels of administration, namely, the headquarters of the State, the district and secondary units, in order to assist in improving environmental hygiene, including the enforcement of suitable standards for housing.

Model master plan for cities

The Committee, in order to indicate the comprehensive nature of the planning that can be undertaken in a large city, prepared a master plan for one such city, making provision for the following:

(*a*) Industrial zones with railway facilities ;
(*b*) areas for housing industrial labour in close proximity to industry, with provision for amenities so as to make such housing schemes self-sufficient townships ;
(*c*) extension of the Civil station to provide accommodation for upper and lower middle class families and their domestic servants ;
(*d*) location of business and civic centres on wide roads ;
(*e*) reservation of sites for public and quasi-public institutions in convenient localities ;
(*f*) ring roads (by—passes) separating external from internal traffic;
(*g*) working class building sites within a reasonable distance of places of work, with provision for amenities similar to those provided for townships ;
(*h*) parks and playgrounds distributed over the entire area ;
(*i*) canalisation of water-courses and diversion of sewage into a complete water-carriage system of drainage ;
(*j*) wide arterial roads driven through the heart of the existing congested city.

The Committee also suggested that improvement trusts should not be allowed to sell land freehold; land should be given on long lease for building purposes, with such conditions as are necessary to ensure that the prescribed standards are observed. As regards urban areas, the local authority responsible for planning should be the District Health Board. This authority should be required to maintain on its staff a trained town planner who would, in technical matters, be subject to the supervision of the State Town and Village Planning Directorate.

In view of the possible repercussions of the location of industry on the health of the community at large, the Committee stressed that the haphazard location of industries in inhabited areas should be controlled by proper legislation. It specifically stated that the local authority should have the right to refuse permission if, in its opinion, such location were objectionable because of the density of population in the neighbourhood or the likelihood of a nuisance being created. Provisions for controlling the location of industry should be included in the proposed model legislation and should be applicable to both urban and rural areas. Whenever an industry is to be established, the plan should be submitted to the Ministry of Housing and Town and Village Planning for previous approval.

Rural Areas

Since rural areas present the most difficult problem from the point of view of planning, and since in certain States many villages have no streets or roads, the houses having been built indiscriminately over the village site, it was considered that the State Town and Village Planning Directorate would find it difficult to secure a suitable staff to undertake satisfactory supervision over the schemes that may be developed. However desirable it may be to replan existing villages, such planning might not be practicable as a short-term measure; for the moment, attention might have to be confined to the lay-out of any new villages which might be established as the result of developments in industry, mining, agriculture or the settlement of demobilised servicemen.

In the case of all new villages, the Committee recommended that the State Director of Town and Village Planning should be consulted before hand by the department concerned and that he should design the lay-out.

The Committee also stressed that an orderly development of rural community life, so as to promote economic and social welfare without at the same time disfiguring the face of nature, is the ultimate aim that planning should keep in view. The Committee finally stressed that in due course the development of town and country planning in India would be best served by the creation of an Institute of Town and Rural Planning.

CHAPTER LXXII

IMPROVEMENT TRUSTS, THEIR WORK AND SUGGESTED REFORMS

In order to provide people with hygienic houses in sufficient numbers equipped with all facilities for community life the necessity of Improvement Trusts in a country like India need not be overemphasized. The responsibility of Improvement Trusts coupled as it is with town planning and amelioration of living conditions for the vast population is a tremendous one.

The Establishment of Improvement Trusts

In India, the Improvement Trusts have set before themselves the task which in England has been accomplished by the Ministry of Health and county councils, under the express provisions of the Housing and Town-Planning Act of 1909, and other subsequent enactments pertaining to housing, public health and sanitation over and above the numerous bye-laws and regulations, issued from time to time, by county councils, metropolitan boroughs and various other local bodies. Though municipal acts and bye-laws were in force in Indian towns even before the inception of the trusts, they were not so consistent and adequate as to make satisfactory progress in town planning and development. No wonder that the improvement of insanitary conditions, the provisions of model houses for the work-people and the general development of the towns leave much to be desired. It would not be an exaggeration to say that even at the present time most of the municipal councils consider questions of town-planning and other development schemes as almost foreign to their functions.

Problem of Towns

Our cities and towns were never planned for industry and grew haphazardly. The usual characteristics are ill-ventilation overcrowding, little space for access of free air, insufficient drainage, want of proper water supply, lack of sufficient open spaces and want of other amenities. In India, at the moment, the chief problem is that of overcrowding resulting from constant migration of people to towns. Reasons for this migration have already been given under "Growth of Cities and Towns in India."

Improvement Trust in various States of India

Bombay Improvement Trust

The first Improvement Trust was created in the city of Bombay in the year 1898, after a terrible visitation of plague in 1896. The

City of Bombay Improvement Act, 1898 was enacted in order to make provision for, the improvement and future expansion of the city of Bombay. Later the Act was repealed by the City of Bombay Improvement Trust Transfer Act, 1925, the object of which was to transfer to the Corporation the property of Board, constituted under the previous enactment, for the purpose of the improvement of the city. The City of Bombay Improvement Trust Transfer Act, 1925, was also repealed by the Bombay Act XIII of 1933.

Calcutta Improvement Trust

Next to Bombay comes Calcutta where the improvement of the city was tackled by the Improvement Trust, the starting point of which was the Calcutta Building Commission in 1897. The Commission was entrusted with the task of inquiring into the history and operation of existing laws and bye-laws on buildings and to consider the desirability of opening out the congested tracts of Calcutta and to suggest ways and means of effecting this. But no tangible scheme could be evolved until the enactment of the Calcutta Improvement Act, 1911 which was designed to make provision for the improvement and expansion of Calcutta by opening up congested areas, laying out or altering streets, providing open spaces for purposes of ventilation or recreation, demolishing or constructing buildings, acquiring land for the said purposes and for the re-housing of persons of the poorer and working classes displaced by the execution of improvement schemes.

Town Improvement Trusts in Uttar Pradesh

The idea of opening congested areas in the State and providing model *bustees* for the poor was mooted in 1907. But it was only in 1919 that the U.P. Town Improvement Act was passed and Improvement Trusts were constituted in Lucknow and Kanpur in December 1919 and in Allahabad in 1920.

Nagpur Improvement Trust

The Nagpur Improvement Trust was established in the beginning of 1936 by an act of Legislature known as the Nagpur Improvement Trust Act 1936. The Act came into force on the 1st January 1937.

Delhi Improvement Trust

The Delhi Improvement Trust was constituted in March, 1937. Before constitution of the Trust Mr. A. P. Hume, I.C.S., was placed on special duty to study the Housing problem in Delhi and to suggest measures of relief. He subsequently became the first Chairman of the Trust. The Report of the Trust while stressing the need of development of Government land and the provision of extra areas on the outskirts of Delhi to accommodate surplus population, observed that unless vigorous action was taken to ameliorate insanitary conditions by the removal of slums, the problem of congestion will remain unsolved.

Under the Calcutta Improvement Act, ' the duty of carrying out the provisions of that Act vests, subject to the conditions and limitations contained therein, in a Board, called 'The Trustees for the Improvement of Calcutta,' and that Board is "a body corporate having perpetual succession and a common seal and is to sue and be sued by the said name". Similarly, under the U.P. Act, the duty of carrying out the provisions of that Act vests, subject to the conditions and limitation contained in that Act, in a Board called ' The (name of town) Improvement Trust,' and every such body is a body corporate and has perpetual succession and a common seal, and can sue and be sued only by the said name. Under this Act as extended to the State of Delhi, this Board is called " The Delhi Improvement Trust." The Nagpur Improvement Trust Act provides, identically with section 3 of the U.P. Town Improvement Act, for the incorporation of Trusts for the improvement of towns under those Acts.

Divergent Policies of Trusts

Though many valuable reports written by Improvement Trusts, Corporations and Development Boards are available, no concerted effort could be made in this direction. The policy of the Trusts seems to have been confined to planning of towns, drainage, water supply and nothing else. The failure of the Trusts to realise the necessity of providing adequate accommodation in advance to the people whom they seek to dispossess of their homes in order to carry out improvement schemes has given rise to a new problem. It cannot, therefore, be too strongly emphasised that improvement schemes in the city areas should be taken up only after, and not before, providing sufficient accommodation for the displaced population.

The policy of the Trusts has been different in different cities. " The complaint is generally made," observes the U. P. Improvement Trust Committee, " that the Trust has so far done nothing directly to improve the sanitation of the town by taking up insanitary enclosures and other plague spots, clearing them and laying them out on sanitary lines " and it is urged with much force that anything well done would have very much increased public interest in, and sympathy with the Trust, and improve the relations between the trusts and the municipality. To add to such failings, the Trusts have generally bestowed little thought on the proportion between the cost and its utility. While the Trusts have been able to make some provision for middle and upper classes in some places, in the matter of housing the working classes and the poorer people, the record of the Trsuts does not appear to be satisfactory.

Reforms suggested

The Trusts in India have cared more for show than for concrete things. What is needed, therefore, is to make the Trusts more popular on their own advisory and deliberate side, to give proper representation to the interests likely to be affected, especially to the labourers and other poor classes, and to observe rigid economy in the appointment of whole time and highly paid officials. The United Provinces Improvement Trusts Committee also recommended the abolition of the post of a paid Chairman, Chief Engineer, etc. It was of the view that the power of coopting members to advise it in its work generally, or in the carrying out of anyscheme, is an effective subsitution for increased representation while architects, surveyors and other experts can be engaged in common by several Trusts, or their services borrowed from other departments of government. On the other hand, efforts should be made to place adequate funds at their disposal to carry out developm ent schemes and to effect temporary and permanent improvements, in order of their merit and urgency. Comprehensive legislation should be undertaken in order to regulate building and other sanitary laws. Besides, other industrial and commercial cities, like Ahmedabad, Sholapur, Poona, Nagpur, Madras, Howrah, etc., which present similar problems on account of their rapid expansion and development as centres of industry and trade, should have Improvement Trusts to look after their local problems. Moreover, municipal councils should be entrusted with the work of the Trusts in all towns where an Improvement Trust does not exist. As in England and America, the Improvement Trusts and municipal councils should be empowered to float loans for purposes of city improvement and housing, to sanction or reject the layout of streets, drains or sewers and to deal with encroachments and unauthorised constructions on public land.

In June, 1948, a conference of the Chairmen of various Improvement Trusts in the country was held in New Delhi. This conference was of the view that the provision of adequate housing accommodation, specially for the lowest income groups, is the paramount duty of the State. The conference also thought that:—

(*i*) there must be centralisation in regard to housing with plan to be put into execution;

(*ii*) the State should grant the highest priority for the movement of building material;

(*iii*) a survey of the housing conditions in rural, urban and metropolitan areas should be made to eliminate unsound and unhealthy houses;

(*iv*) the cost of building material should be kept as low as possible and lower tariff and freight rates for essential materials;

(*v*) a High Power Committtee consisting of engineers and architects should be set up to draft N.B.C. and model building regulations ; and

(*vi*) provision for subsidy to be granted to low income group persons should also be made.

CHAPTER LXXIII

CENTRAL AND STATE INDUSTRIAL HOUSING SCHEMES

As early as 1914 the Indian Industrial Commission recognised the provision of cheap, sanitary and adequate housing accommodation as the most important problem for the health and efficiency of the industrial workers.

Whitley Commission

In 1931 the Royal Commission on Labour in India also urged the immediate need for the adoption of legislative and administrative measures for the provision of houses with adequate space, light, ventilation, drainage, latrines and sanitary arrangements. The Commission also specified different roles for the Central and Provincial (now State) governments, municipalities and local boards, co-operative societies, employers' and workers' organisations. The following recommendations of the Commission involved legislative measures (1) amendment of Land Acquisition Act providing for acquisition of land by industrial concerns for housing their labour (2) enactment of Town Planning Acts by States and (3) statutory obligation on every improvement trust to provide for workers' houses. The recommendations requiring administrative actions by State governments and municipalities were (1) survey of urban and industrial areas by State Governments for ascertaining the housing needs and laying down of minimum standard in regard to cubic space, ventilation, lighting, water supply, drainage, latrines and sanitation ; (2) development and layout of industrial areas and maintenance of proper sanitary arrangements and preparation of sample plans for industrial housing ; (3) efforts for evolving cheaper types of houses ; (4) encouragement to co-operative building societies and to the workers for erection of their own houses and (5) undertaking of preliminary work and revision of bye-laws regarding health, housing and sanitation. The action taken by the Cenral and State governments on the above recommendations is given below.

On the 12th September, 1932, the Government of India introduced a Bill in the Legislative Assembly to amend the Land Acquisition Act and the Land Acquisition (Amendment) Act was passed in 1933 (XVI of 1933) enabling industrial concerns owned by an individual or an association of individuals and employing 100 or more workers, to acquire land compulsorily for the purpose of erecting dwelling houses for their workers and for providing other amenities.

Madras and Bombay enacted Town Planning Acts. The Town

Improvement Act in the U. P. and the Municipal Act in Madhya Pradesh contained necessary provisions. Improvement Trusts have already been established in several States.

In spite of the recommendations of the Whitley Commission, there has been no appreciable change in the matter of providing adequate sanitary houses to the industrial workers. In the United Kingdom and the Continent the housing of lower income groups has been accepted as the responsibility of the State and local authorities, but in India this important problem has all along been in different stages of discussions without recourse to any constructive action, either legislative or administrative.

Attempts by governments, local bodies and employers

Only the Bombay Government launched an industrial housing scheme after the first World war. The U. P. Government graned interest-free loan to the Kanpur Improvement Trust for construction of workers' houses.

Bombay City Improvement Trust and Ahmedabad Municipality constructed a large number of tenements for housing of labour. Delhi Improvement Trust drew up a scheme for construction of three standard types of houses to rehouse displaced poor families on nominal monthly rental. But the activities of improvement trusts and municipalities in general have made little impression upon the housing difficulties of industrial workers.

Some employers have attempted to solve partially the housing difficulties of their workers by providing quarters, *viz.*, Tata Iron and Steel Company and Indian Steel and Wire Products of Jamshedpur, Bata Shoe Company of Calcutta, Birla Jute Mills of Budge Budge, British India Corporation of Kanpur, Buckingham and Carnatic Mills of Madras, Delhi Cloth Mills, Delhi, etc., and Port Trust authorities of Bombay and Calcutta. Ahmedabad Textile Labour Association has done notable work in the matter of providing housing on co-operative basis.

Provincial Labour Enquiry Committees

The Bombay Textile Labour Enquiry Committee, Kanpur Labour Enquiry Committee and Bihar Labour Enquiry Committee also pointed out the deplorable housing conditions in most of the industrial centres. The Bihar Enquiry Committee recommended that all new factories before starting operations should obtain license from the Government which should be granted only if minimum standards for housing of labour were provided and that the local authorities should be given power to demolish houses unfit for human habitation.

The Bombay Enquiry Committee came to the conclusion that as decent hygienic conditions had a great influence in increasing the general efficiency of the workers,the problem should not be left to private enterprise alone and recommended that the Government should formulate and execute necessary housing programmes leaving the responsibility for development to the local authorities. Accepting the recommendations, the Government of Bombay set up the Bombay Provincial Housing Board in 1949 with the Minister for Labour and Housing as Chairman for providing increased housing accommodation through Government or local bodies and encouraging private building enterprises and co-operative housing.

Labour Ministers' Conference

The question of industrial housing was discussed in the first Labour Ministers' Conference held in January, 1940 and it was decided that the State Governments should pool their experience and encourage the employers to provide housing schemes.

Rege Committee

The Labour Investigation Committee came to the conclusion that the growth of industry in this country synchronized with the growth of slums and that the State should once for all make up its mind about the exact lines of policy and should take bold and immediate action to implement the same. The Committee suggested that the question of responsibility for providing housing facilities to the workers either by the State or municipalities and other organised bodies or by the employers should be decided first ; but the State should at least take the responsibility of providing finance for housing and the recurring expenses should be borne by the different parties. It also suggested that the State should direct new establishments to organise industries in scattered areas and encourage trans-plantation of existing industries from congested areas to rural or urban areas, both subject to availability of transport facilities. It recommended setting up of statutory Central and State Housing Boards on a tripartite basis to deal with the industrial housing policy and all questions concerning finance, ownership, standards of accommodation and actual construction.

Appointment of Housing Sub-Committee

Industrial housing was one of the subjects discussed at the seventh standing Labour Committee of the Tripartite Conference held in August, 1945 and a Sub-Committee was appointed to consider and report on various aspects of this problems. The Committee submitted its report in May 1946 relating to the housing of industrial labour and those other workers in urban areas who were unable to pay an economic rent. The report comprised two parts covering respectively the long term and the short term plan regarding housing.

The long-term housing plan indicated the manner in which a long co-ordinated housing plan for industrial labour could best be prepared and the following provisions were considered essential in any such plan.

(*i*) A long term target of sufficient scope to ensure that the maximum economy possible under items (*iii*) and (*iv*) below will be secured.

(*ii*) Financial provisions which will ensure that while adequate standards of housing are maintained, rents charged will be such as can be paid by the classes for whom the housing is constructed. This is likely to mean subsidies by Government and contributions by employers.

(*iii*) Adequate planning to ensure maximum utilisation on a rationed scale of standardised parts, adequate programming of orders for such standardised parts by some central industrial authority and the placing of bulk forward orders for materials such as cement, tiles, etc.

(*iv*) Co-ordination of building activities with town planning schemes and co-ordinated transport schemes so that industrial housing can be provided in circumstances which will make it unnecessary to have over-crowding and make it possible to provide reasonable space for each house.

The short term plan was so framed as to have the greatest possibility of its being merged conveniently into the long term plan. Under the short-term plan the Government of India was prepared to make capital grants of 12½ per cent (subject to a minimum of Rs. 200 per house) of the cost of any such schemes undertaken by improvement trusts, State Governments, municipalities, or employers provided the Provincial Governments and municipalities were themselves prepared to make an equivalent grant from their own revenue and provided that the schemes complied with the following provisions—

(*i*) That they provided a suitable standard of accommodation, suitable siting and maximum economy in construction. The minimum standard family unit should comprise 2 rooms (240 s.ft. area), a kitchen with storage space for food and fuel and an independent bathroom and a latrine.

(*ii*) They secured adequate protection for workers occupying houses built by their employers under the subsidised industrial housing scheme.

The Government of India later estimated that the cost of a house with accommodation on the scale contemplated but exclusive of water-supply, sanitary fittings and the cost of land should be about Rs. 2,250 and not Rs. 1,300 which was the original figure. The building of houses of much higher costs than the original estimates was considered to be inflationary in its effects. The Government of India, therefore, suggested to the State Governments in November, 1946 that they should consider only such housing schemes as were extremely urgent and that it would probably be more convenient to prepare separate schemes to suit the circumstances of particular localities and not to attempt at that stage to introduce a unified scheme for the whole State.As regards the housing problems generally, it would be realised that it would not be possible to justify discrimination in favour of industrial workers alone but that the problem should be treated as inter-connected with town planning, clearance of slums, public health, etc., which would necessarily impose varying degrees of responsibilites on employers, Governments (Central and States) municipal bodies, etc. It may even be necessary to resort to legislation in order to enforce certain obligations on industrial employers. When schemes had been prepared by the Provincial Governments according to the urgency of their needs, they might indicate the share of cost to be borne respectively by industrialists, municipal authorities and the Provincial Governments. For its part, the Central Government would be prepared to co-ordinate and cooperate in any such measure by rendering reasonable financial assistance the extent of which would be decided on the merits of each case.

The response to this scheme was nil. Further examination revealed that any attempt to undertake large scale construction would only force the prices still higher and militate against the economy of the country. The scheme was dropped in November 1946 and State Governments were advised to take up only such schemes as were of pressing necessity.

At the Labour Ministers' Conference held in November 1947, the urgency of industrial housing was again emphasised. As it was not possible to expect any substantial subvention from Central Revenues, it was suggested that funds necessary for financing industrial housing schemes might be raised by means of a levy on output, similar to the housing cess levied on coal despatches.

The Industrial Truce Resolution passed in December 1947, recommended that "as a first step towards improving the standard of living of workers, immediate attention should be devoted to the problems of housing of industrial labour." The suggestion made at the Labour Ministers' Conference for levying a cess and earmarking it for industrial housing was not accepted by Government on the ground that such a levy formed an important source of Central finance which would be adversely affected by this proposal. It was, however, agreed that industrial housing was a responsibility which should be shared by the State (including the States and the Centre), Industry and Labour, the States share being in the shape of an outright grant for building houses. Accordingly early in April 1948, the Government of India announced, as part of their industrial policy, their decision to construct one million workers' houses in ten years and to constitute a Housing Board for the purposes, the cost being shared in suitable proportions between Government, employers and labour, the share of labour being recovered in the form of a reasonable rent each month.

After careful examination it was proposed that the Central Government should advance loans to serve as capital required for construction of houses in accordance with the announcement made in April 1948, and that the recurring charges which were estimated at 7½ per cent. (3 per cent interest, 2 per cent sinking fund and 2½ per cent maintenance) should be shared as follows:—

(*i*) Worker as rent 3 per cent subject to 10 per cent of earnings ;
(*ii*) Employer 1½ per cent ;
(*iii*) Central Government 2 per cent; and
(*iv*) State Government 1 per cent.

The proposals were discussed at the Labour Ministers' Conference held in May 1948 but it was found that the State Governments were not prepared to provide the contribution expected of them. After further discussion it was generally agreed that a capitation tax of Rs. 3 per worker per month employed in factories and Rs. 1-8 per worker in plantations was the only way of financing the scheme. It was proposed, *inter alia* that the capital required should be raised by loan and that the recurring charges estimated at 7½ per cent should be met in part by the levy of the capitation tax mentioned above. It was further suggested that the Central Government should make a contribution of 2 per cent on the cost of construction.

The question was again considered by the Government of India in October 1948. It was agreed that the scheme for Industrial housing could not be abandoned but expenditure would depend on the availability of finance and raw materials. The matter was left for further examination. In the meanwhile the Economists had advised that, in view of inflation, the levy of the proposed capitation tax would not be desirable. A revised scheme of Industrial Housing was, however, drawn up by the Ministry of Labour in March 1949. The broad features of the scheme were as follows :—

(*i*) Two-thirds of the required capital would be provided by the Union Government as an interest-free loan, and the remaining one-third by the State Governments, or by the employers sponsored by them as a 3 per cent loan.

(*ii*) The recurring charges were estimated at 7½ per cent which included 3 per cent on account of interest, 2 per cent sinking fund and 2½ per cent maintenance. If interest on capital provided by the Central Government free of interest is excluded, the total works out to 5½ per cent of the capital cost. Of this, the employers were to contribute 3 per cent of the cost in the form of rent for houses allotted to their workers and the workers would pay rent at 2½ per cent of the cost, subject to the limit of 10 per cent of their wages

(*iii*) The Union Government would set up a Central Housing Board for exercising directive control over the house-building activities and will bear the necessary cost. The cost of setting up Regional Housing Boards was to be met by the State Governments.

The scheme was communicated to the State Governments in April 1949 but the response was not very satisfactory. The Governments of Bombay, Bihar, Orissa, Madhya Pradesh and the Punjab alone expressed willingness to participate in the Scheme. The Government of India provided Rs. 1 crore in their budget for 1950-51and Rs. 1.68 crores during 1951-52 to enable a start being made. This was distributed as follows:—

State	1950-51 (Rs. in lakhs).	1951-52 (Rs. in lakhs.)
Bombay	60	44
Bihar	10	30
Madhya Pradesh	10	10
Orissa	10	10
Assam	..	10
Mysore	..	20
Hyderabad	..	20
Travancore-Cochin	..	10
Punjab	10	5
Madras	..	9
Total	100	168

Against the loans advanced during 1950-51 the Government of Bombay built 1,712 houses, Bihar 100 houses, Orissa 261 houses and Madhya Pradesh 400 houses.

Planning Commission's Scheme

The question of Industrial Housing was taken up by the Planning Commission in 1950 in consultation with the Ministry of Labour. Various schemes, including the one drawn up by the Ministry of

Labour were examined by them. They thought that private enterprise by itself was not likely to be able to cope with the situation. Consequently the Government must step in and sponsor programme of construction. The problem must, however, be tackled in stages because of the limited resources at the command of the community. So they felt that more attention should be given to urban areas and to the needs of persons with low incomes.

The Commission accordingly worked out a scheme on the basis of contributions from workers, employers and the State. This programme envisaged the construction of 125,000 subsidised houses in 5 years, that is, 25,000 houses every year. To implement the scheme, a National Housing Fund was to be raised as below :—

Source	Basis of contribution	Estimated receipt (crores of rupees).
Employers	Outright grant amounting to 2½ per cent of the total wage bill.	15
Workers	2½ per cent of monthly wages to be treated as loan at 3 per cent.	15
Central Government ..	Average grant of 2.7 crores per year.	13.5
State Governments ..	....	3.7

It was thought that as the price of land is a substantial factor in the construction cost, land should be available at reasonable rates and the cost of construction kept low. The States should have powers to acquire land. At the same time, to keep the cost of construction down, detailed estimates should be made before the work is started. The present method of budgeting from year to year makes it difficult to draw up plans in advance.

While the 1948-49 scheme of the Government of India contemplated assistance by the Central Government in the form of interest-free loan of the two-thirds of the capital, Planning Commission's plan visualised an outright grant of about 20 per cent of the total cost. This scheme was formulated before the Employees' Provident Fund Act was passed. With the passing of this Act, funds would be available for provision of capital for housing and the employees are to contribute 6¼ per cent of their wages to the Provident Fund under the Act. In order to implement this programme, the Commission recommended the creation of a National Housing Board at the Centre with Regional Boards in the States. It was proposed that the Board would frame policies and allocate funds to the States according to their needs, fix priorities and promote research. The ownership of the houses constructed and all other assets would vest in the National Housing Board.

It was proposed that the National Housing Board *inter alia* would be intended to activate building programmes and to initiate establishment of new townships. Along with the State Housing Boards, it would initiate proposals for tapping possible sources of housing finance. The State Housing Boards would collect information regarding the housing needs of different classes of people and would encourage slum clearance to improve the existing conditions of housing. The National and the State Housing Boards were suggested to be set up on the lines of the Road Research Organisation.

In order to reduce the economic rent of the houses, the Commission proposed that the State Governments should forego the urban immoveable property tax on such constructions and also bear the administrative charges of the States Housing Boards (about 10 per cent of the cost of construction). The local bodies who also bear some responsibility in the matter of housing, should be asked to forego 50 per cent of their taxes in respect of these houses.

Employers were, however, opposed to both the schemes as they thought that the houses built under either of the two schemes would be owned by Government or by some Statutory Housing Board and would not be owned by the employers themselves. There was no provision in either of the schemes by which the employers would be encouraged to build houses for their employees.

To meet this objection another scheme was formulated which provided for 20 per cent subsidy from the Central Government, including the cost of the land. Under this scheme though the houses were to be the property of the owners, the Central Government would lay down certain conditions in regard to recoveries from workers, specifications of houses to be built, etc. The Government of India also consulted the State Governments and the employers to ascertain their views.

It was felt that to give effect to these schemes and plans, legislation for the following specific purposes would be necessary:—

(*a*) To secure due authority for the creation of the Central and Regional Housing Boards ;
(*b*) to enable the Central Housing Board, when set up, to exercise directive control over the activities of the Regional Housing Boards ;
(*c*) to enable the Regional Housing Board to carry out their functions of executing the construction, programme of letting

the houses out to and collecting rent from the workers and realising contributions from the employers ; also to provide for the ownership of the houses being vested in them (employers) ;

(*d*) to make the payment of contribution by employers in the form of rent for the quarters allotted to their workers, at 3 per cent or at a lesser percentage of the cost, obligatory ; and

(*e*) to permit deductions being made from the wages of the workers on account of the rent for the quarters allotted to them.

The legislation should give enabling power to Government for making, subject to certain ceiling limits, levies from the employers for meeting part of the cost of housing of industrial workers, these levies being either on the basis of the houses allotted to individual employers for use of their employees or as a percentage of the total wage bill. A measure of flexibility was to be provided so that other schemes, *e.g.*, construction of houses by employers for use of their employees, with or without assistance from the State could also be required in cases where such schemes would be more suitable. There would also be an obligation laid on the workers to occupy the houses built under the scheme subject to payment of rent at the rates prescribed by Government. The proposed legislation was also to make suitable provision for the establishment of Statutory Housing Boards with adequate powers to undertake housing schemes and to make recoveries from the parties as also to deal with other connected matters like terms of renting, etc., exemption of Government owned undertakings from the provisions of the legislation as the major employing departments of Government, like Defence, Railways and Posts and Telegraphs, have both industrial and non-industrial employees all governed more or less by the same conditions of service. For the same reason Government exempted Government owned undertakings from the Provident Fund Scheme.

As the Planning Commission felt that the concession so far allowed did not produce the desired effect, they thought that the subsidy will have to be liberalised still further and spplemented by loans. They, therefore, have now recommended a subsidy up to 50 per cent of the total cost of construction including the cost of land. The subsidy admissible to private employers of labour under this scheme has been limited by them to 25% of the total cost of construction. They also recommended that in addition to the sbsidies, loans should be made available to the State Governments for the balance of the cost of construction at a rate of interest which should only take into account the cost of servicing the loans above the current rate of the Central Government borrowing. Such loans should be repayable in 25 years. The State Governments may be expected to make funds available to Statutory Housing Boards out of the Central loan. Loans should also be admissible to the co-operative housing societies of industrial workers and to private employers up to 37½ per cent of the actual cost of construction including the cost of land, that is, the total cost less the subsidy of 25 per cent. The State Governments will fix the rate of interest keeping in view the interest charges they have to pay to the Central Government. Sufficient safeguards in regard to transfer of shares of the members so that by a change in the composition of the society the houses do not come into the possession of a class for whom they are not intended should be taken. The Commission also were of the view that provision should be made for loans to co-operative building societies of middle class and other low-income groups, though they may not be considered eligible for the payment of a subsidy. In such cases the rate of interest to be charged should be reasonable, *i. e.* it should be only ½°/₀ higher than what the State Governments have to pay to the Central Government. The loans to such societies, etc., should be paid through the State Governments concerned. The Commission laid emphasis on co-operative housing societies not only because they can mobilise private capital, which otherwise would remain dormant, but because they open the way for aided self-help in the construction of houses which should be encouraged for reducing the cost as much as possible.

The Commission, however, felt that for years to come the bulk of the building activity will still have to be undertaken by private enterprise, because the private builder can construct at a rate considerably cheaper than public bodies on account of economy in supervision and personal attention to details. The Commission recommended that the encouragement to private builders should take the following forms :—

(*a*) provision of suitable building sites, where possible, at reasonable cost ;

(*b*) empowering the statutory housing boards to guarantee loans which a private builder may obtain from a bank or an insurance company to finance construction of buildings—the buildings in such cases being hypothecated to the housing boards ;

(*c*) reorganising the present system of distribution of essential building materials ; such as steel, cement, coal, etc., and taking steps to reduce the high prices of these materials ;

(*d*) provision on the lines of Section 39 of the Delhi and Ajmer Rate Control Act XXVIII of 1952, which exempts premises constructed between certain periods from the operation of the rent fixation law.

While due encouragement to private builders has been recommended, the Commission thought that steps should be taken to eliminate the speculative element in land and to discourage land hoarding in urban areas, for which purpose the taxation structure on vacant lands should be so designed as to make all land hoarding unprofitable.

In regard to the minimum standards of services, the Commission recommended the following:—

(*i*) every unit should have at least one water-tap for drinking water ;
(*ii*) the latrine should be preferably of the water-borne sanitary type which in a single-storeyed unit may have to be shared between two tenements ;
(*iii*) effective provision should be made for disposal of kitchen and bath-water through the water-borne system ; and
(*iv*) electricity should be provided for lighting, as far as possible.

The question was actively considered by the Central Government (Ministry of Works, Housing and Supply). The Hon'ble Minister for Works, Housing and Supply referred to the scheme in Parliament on the 19th June, 1952 and said that Government were serious about the scheme of housing and clearance of slums in industrial areas and worked out details in consultation with State Governments, employers and employees, etc. A machinery would be set up for the effective and efficient execution of the scheme. Rural housing was also engaging their attention. He also added that a legislative measure would be brought forward for the setting up a Central Housing Board and the Regional Housing Boards. The Hon'ble Minister invited public co-operation in the matter stating that Government's responsibility was great, but still greater was the responsibility of the people.

The Central Government gave further consideration to the existing schemes and framed another scheme in July, 1952. They worked out the details of the allocation of the sum of Rs. 9 crores provided in the budget for 1952-53 to various authorities. These details and the scheme as a whole were discussed at a Conference held in New Delhi on the 25th and the 26th August, 1952. Representatives of the State Governments, Employers' and Workers' organisations attended the Conference. Discussions were held jointly and severally with these representatives.

Subsidised Housing Scheme as finalised

The scheme as discussed contemplates building of houses principally for accommodating industrial workers through the agency of the State Governments, statutory housing boards where they exist, employers and registered co-operative house building societies of industrial workers. The assistance which the Central Government propose to give towards the programme is by means of subsidies and loans on relatively easy terms.

The scheme also envisages loans at reasonable rate of interest to :—

(*i*) cooperative house building societies of low-income groups (other than industrial workers) and middle-income groups for housing schemes, and
(*ii*) local authorities and improvement trusts for acquisition of land and clearance of slum areas.

The Central Government will grant subsidies as follows :—

(*a*) to the extent of 50 per cent of the actual cost of construction including the cost of land for housing schemes undertaken by the State Governments or Statutory Housing boards, and
(*b*) to the extent of 25 per cent of the actual cost of construction including cost of land of housing schemes undertaken by employers and registered cooperative societies of industrial workers which provide in their constitution that the houses will not pass to any one other than industrial workers.

The Central Government will grant loans as follows :—
(*a*) to the State Governments up to 50 per cent of the cost of construction including the cost of land repayable in 25 years at 4¼ per cent per annum ;
(*b*) to the State Governments for industrial cooperatives up to 37½ per cent of the cost of construction including cost of land at 4¼ per cent repayable in 15 years ; and
(*c*) to employers up to 37½ per cent of the cost of construction at 4¼ per cent per annum, repayable in 15 years.

Note :—(*i*) Land already acquired will not be taken into account for the purpose of the subsidies and loans,
(*ii*) loans and subsidies will be limited to the amounts calculated on the basis of the standard cost, *viz.*, Rs. 2,700 and Rs. 4,500 for one room tenements in single storeyed buildings and one room tenements in multi-storeyed buildings respectively,

(*iii*) the subsidy to cooperative building societies of industrial workers should, as far as possible, take the form of grant of developed building sites.

No loans or subsidy under this scheme will be admissible for housing employees of the Central or the State Governments except where employed by corporations or companies coming within the scope of the Employees Provident Fund Act.

Specifications

Accommodation will be of two types ;

(*a*) In cities of moderate size where land values are not exorbitant: single storeyed tenements containing one living room, a kitchen, a verandah or lobby and a bathing space with a water tap. A water flushed latrine to be shared between two tenements or a service latrine for each tenement will also be provided.

(*b*) In larger cities where land values are very high; multi-storeyed building, where each tenement will comprise a living room and a kitchen. Community latrine and bath rooms will be provided for a group of flats.

The living room in either type will be of size of not less than 120 sq. feet.

The details of the specifications and the estimated cost for each type of accommodation proposed are shown in Appendix No. V. Modifications and alterations can be made by housing boards or State Governments to suit local conditions, but the subsidies and loans will in no case exceed the maxima laid down in the scheme. If an employer or a cooperative society desires to modify the specifications substantially, he or the society should obtain the permission of the Central Government.

Recoveries

The calculation of rent of tenements built by the State Governments takes into account Sinking Fund charges on 50 per cent of the total cost calculated on 40 years basis at 4¼ per cent, interest charges at 4¼ per cent, maintenance charges at 1½ per cent of the cost of construction, municipal rates and taxes at 12½ per cent of the rent in case of single-storeyed and 25 per cent in case of multi-storeyed houses. Loans issued by the Central Government will be repayable, in the case of the State Governments within 25 years and in the case of employers and cooperative societies of industrial workers within 15 years.

On this basis, the standard rent for different types will be as follows:—

	per mensem Rs.	a.	p.
(*a*) One roomed single storeyed tenements	10	0	0
(*b*) One-roomed tenements in multi-storeyed buildings ..	17	8	0

This is likely to give a return of 5 per cent on the total cost. The rent in each category will be uniform.

For the purpose of calculating rent, it is assumed that an average working class family consists of 1.6 wage-earners. The rent charged would not exceed 10 per cent of the average family earning of a worker in a small sized town. In Calcutta and Bombay, however, rent may amount to above 12½ per cent of the earnings of an average working class family. These figures are in the nature of maxima and it will be open to the authority concerned to charge lower rent if the conditions, such as reduction of cost, etc. do permit.

Co-operative societies of low-income groups (other than industrial workers) and middle-income groups may obtain loans under the provisions of this scheme repayable in 15 years for the purpose of building houses for their members. Such loans will be issued as loans to State Governments at 4¼ per cent who will also guarantee amortisation of loans. The main purpose of these loans is to promote self-help housing by people of limited means. Adequate safeguards will, however, have to be provided to prevent such houses from falling into the hands of capitalists and speculators.

There is a provision in the current year's budget of the Government of India of Rs. 9 crores for industrial housing schemes.

Under this scheme, the programme of construction during the financial year 1952-53 will be as follows:—

(*a*) by the State Governments and housing boards:	
one roomed single-storeyed tenements	8,000
one roomed tenements in multi-storeyed buildings	3,500
	11,500
(*b*) by employers and cooperative societies of industrial workers:—	
one roomed single-storeyed tenements	12,000
one roomed tenements in multi-storeyed buildings ..	5,000
	17,000
Grand Total ..	28,500

For the above, subsidies may be payable as follows:—

	Rs. in lakhs
(*a*) to the State Governments at the rate of Rs. 1,500 and Rs. 2,250 respectively for one-roomed single storeyed and one room multi-storeyed tenements	186.75
(*b*) to employers and cooperatives of industrial workers at the rate of Rs. 675 and Rs. 1,125 respectively for one-roomed single storeyed and one-roomed multi-storeyed tenements ..	137.25
	324.00

Loans may be admissible as follows:—

(*a*) to the State Governments..	186.750
(*b*) to employers and cooperatives of industrial workers	205.875
	392.625

In addition to the target of 28,500 housing units under the subsidised scheme, about 6,000 housing units are expetced to be constructed by cooperative house building societies (other than those of industrial workers). The housing programme of the current year may, therefore, aim at building 33,000 housing units in round figures.

For the purpose of this scheme " Industrial Worker" will mean "A worker employed in a factory governed by the Indian Factories Act."

According to the scheme, the Central Government will bear the major share of the financial burden of the housing programme. The State Governments will meet any short-fall in the maintenance charges of the housing estates to be constructed by them and by the housing boards. The establishment charges on the schemes taken up by the State Governments and housing boards or any agency other than private employers, will also have to be borne by the State Government. The provision of schools, dispensaries and other amenities for these housing estates will be made by local authorities concerned in the normal course. In regard to municipal rates and taxes, it is suggested that the State Governments should persuade local authorities to allow a rebate of at least 50 per cent of the general rate or house tax at least for an initial period of say 10 years. This will help in reducing rent. The Central Government will also take adequate steps for the supply of building materials and their transport. Programme for this purpose will be drawn up in consultation with the State Governments.

In the tenements constructed by employers, the management of each housing estate will be entrusted to a committee consisting of representatives of the employer and of the workers concerned with an official chairman nominated by the regional housing board or the Labour Commssioner. This committee may also be entrusted with the allotment of tenements though the allotment will be confined to the employees of the employer concerned. Employers will provide a reasonable time limit within which a worker, who is no longer in their employment, will be required to vacate the tenement. Until the proposed legislation covers these points, they will be included in the agreement between Government and the employers who accept the subsidy and loan under this scheme.

It is recognised that acquisition and clearance of slum areas should be integral part of the housing programme which aims at providing decent accommodation for the lowest income-groups. In order to enable local authorities and improvement trusts to undertake bold slum clearance programmes, loans will be made available by the Central Government to the State Government concerned at 4½ per cent repayable in 15 years to provide the initial outlay for the purpose. The rehousing of the slum-dwellers who are industrial workers will be tied up with the housing programme under this scheme. Rehousing of slum dwellers other than industrial workers will be in accordance with the schemes framed by the State Governments. The slum area, thus cleared, may be disposed of either in the open markets or set apart for sale or lease to middle and low-income groups. Such schemes will be subject to approval by the Sate Government concerned. The amortisation of loans to local authorities and improvement trusts will be guaranteed by the State Government concerned.

To implement this scheme the Central Government have asked the various State Governments and other agencies to indicate their respective demands and also send the plans and specifications etc. of the houses to be constructed. The private agencies will send their replies through their respective State Governments.

The Hon'ble Minister for Works, Housing and Supply toured the various States (October 1952) to infuse enthusiasm and to see personally how the housing programme as discussed at the Conference is being pursued by the State Governments and other authorities. He has so far visited Ahmedabad, Bombay, Bangalore, Hyderabad, Kanpur, Lucknow and Calcutta. While at Hyderabad he expressed appreciation for the work done by the State Government and said that the State had done well in adopting new ideas making full use of local material and skill. At Kanpur he met a deputation of industrialists and also discussed the scheme with the representatives of workers. He said the industrial housing scheme as sponsored by the Centre was directed towards the fulfilment of a long-felt want. He said that the industrialists seemed to generally welcome the scheme and that India being a welfare State, the Government had to operate in the private sector too in the interest of the common man. At Calcutta he emphasised that the State Governments should draw fully on the Centre's Budget provision of Rs. 9 crores within the current financial year for construction of workers' tenements under the scheme. He also examined certain schemes of the State Government on the spot and found the sites, etc., very suitable. He invited all the potential beneficiaries to come forward and take advantage of the Government's financial offer.

A National Housing Act which will cover all relevant provisions in regard to the Industrial Housing is also under the consideration of the Union Government.

A Central Cabinet Housing Sub-Committee consisting of the Ministers for Housing, Labour, Communications and Health has been set up to discuss the Planning Commission's recommendations on the establishment of a National and State Housing Boards and for the promotion of legislation to encourage the building of more houses.

The Members of Parliament are also now serious about the problem and it is understood that an all India Housing Association has been formed by them. Shri Mohan Lal Saxena, M. P. will be the President of the Association and Mr. Om Prakash, M. P. its Secretary. The Association will work as a liaison between the Central and State Governments and the non-official organisations engaged in constructing houses. It will also suggest ways and means of clearing slums, arrange financial assistance from the Government, banks and insurance companies and approach the State Governments to bring about a uniformity in the building bye-laws.

CHAPTER LXXIV

FINANCE—COST OF HOUSING—WAYS AND MEANS

The main difficulty in the way of promoting any suitable scheme of housing is finance. Many schemes have been formulated during the last 30—40 years, but most of them have fallen through as finance involved could not be arranged. It will be interesting to know the background and the views of the various Committees and Commissions in regard to this important aspect.

Industrial Commission's Views

The question of building houses for industrial workers was first raised by the Industrial Commission in 1918. It suggested an alternative form of assistance where it was desirable to accelerate unduly slow progress in housing or to avert threatened congestion. It recommended that land might be acquired compulsorily from private persons at the cost of Government or of the local authorities concerned and leased by them to the employer either at a rate which would pay off its cost over a term of years and leave it as the property of the employer, or on ordinary long leasehold terms. The land would afford ample security for the outlay. Local authorities should also be encouraged, or where necessary created, to ensure the development and layout of growing industrial areas on suitable lines, as well as to supervise sanitation. So far as financing was concerned, in regard to Bombay, in particular, the Commission said that the financing should be done by the local bodies with the assistance of the local government. As regards industries already located in the city, the existing position must be accepted as a basis, but the conditions should be considerably improved. A definite standard for industrial dwelling should be determined and a programme of building worked and taken at the expense of the local authorities, who should then manage the buildings. If the existing resources of these bodies together with the assistance of the local government were not sufficient, further taxation should be imposed in such a way as to fall mainly on the employers whose co-operation might most suitably be obtained in this form. Due account should be taken of cases where employers had already made adequate arrangements for the housing of their labour. While recognising that the outlay involved was very heavy, the Commission added: " though we think it inadvisable to attempt any estimate, we do not consider that the cost will reach an impossible figure. The delay, which has already been allowed to occur, has greatly increased the estimate which would have sufficed a few years ago, and it seems fairly certain that further hesitation will make matters a great deal worse. For every reason, therefore, action should be taken at once."

Royal Commission on Labour

The question was later thrashed out by the Royal Commission on Labour which was of the view that the action taken by the parties concerned, the Government, the local bodies and the employers was in inverse ratio to their responsibility. Employers had done most, while the municipal committees least. According to the Commission the preliminary responsibility rested with the municipal authorities. It suggested that where suitable land was available, Government should be prepared to sell or lease to those who agreed to build houses within a specified period and that Government should agree to subsidise housing schemes advanced by employers and the improvement trusts and co-operative building societies should be encouraged to construct houses.

The Health Survey and Development Committee (Bhore Committee)

The Committee expressed its views in the following words:

" The housing programme, on the scale envisaged, will be costly. The Governments concerned will have to abandon the policy, which most of them have followed up to the present day, of insisting that schemes for slum clearance and house construction must be self-supporting. The importance of adequate and better housing to the health and efficiency of the community cannot be calculated on a strict accounting basis. The effect of slum life, crowded tenements and ill-ventilated and insanitary conditions upon the productive capacity of the people is immeasurable." The Committee agreed that the provision of houses for the people is the State responsibility. The State, therefore, must be prepared to provide the necessary funds by taxation or by loan.

There are three types of schemes ; those which are financed wholly from State or Central funds; those to which the State gives grants-in-aid and those which are financed wholly by private interests.

The Committee recommended that where the Governments wholly finance schemes, powers might be delegated to suitable local authorities to execute such schemes subject to adequate supervision. By giving grants-in-aid or loans at low interest rates, Governments may utilise the services of public and private agencies including building and co-operative societies. Where schemes are wholly financed by private enterprise, Government's intervention should be limited to ensuring strict compliance with all the housing and other standards prescribed by law. Many of these powers are now vested in local bodies, and provided they are effectively used and are subject to constant supervision and control by the Ministry concerned, this practice may continue.

The Committee stated that it was difficult to estimate with any precision, the cost of housing the population on the basis of the standards outlined. The authors of the Bombay Plan estimated a capital cost of Rs. 2,200 crores for the construction of new houses and the reconstruction of old ones, on the basis of an average of 100 sq. ft. accommodation per head. They also estimated the cost of building a house with two rooms, a bath room, privy and a compound with an over-all area of about 500 sq. ft. at approximately Rs. 400 in rural areas and Rs. 800 in urban areas. The cost of a house, built to the standards recommended by the Committee, excluding the cost of land, was estimated in one urban area at Rs. 2,000. It must be remembered that provision has to be made not only for the capital cost, but also for the annual expenditure on maintenance.

The Committee was not in a position to express a definite opinion upon the financial implications. It urged that there should be an inquiry into building costs as early as possible. Even if present costs are considerably reduced, there is little doubt that the present resources of the Governments, local authorities and private interests concerned will not be equal to the task of providing decent housing for the population for many years to come. It is possible that for a time India may have to be content with something less than the prescribed standards. The figures quoted should not be a discouragement, but an incentive to the accomplishment of a task which is of fundamental importance to the health of the community. Most of the cost of these schemes must be met from development loans raised at low interest rates. The Committee was confident that the public would be prepared to subscribe freely to such loans once they realise that the proceeds are to be used for an all-out attack upon the deplorable housing conditions in the urban and rural areas of India today.

Recent suggestions in regard to Finance

Since the World war II ended, several factors have been operating, the most serious being rise in the cost of materials and labour and shortage of building materials. The question of financing housing schemes is linked up with the cost of construction and has become all the more difficult. The present situation is as follows:

(1) There is great scarcity of materials with the result that their prices have risen to unprecedentedly high levels.

(2) The cost of building construction has risen inordinately and consequently, construction of low rent houses is wellnigh impossible.

(3) The rise in the cost of construction is of such a magnitude that besides the working classes, a section of the middle classes has been brought within the orbit of the class which is unable to pay economic rent for accommodation.

(4) At a very conservative estimate, persons falling in the income groups of Rs. 200 per mensem and under, cannot afford to pay economic rent.

(5) While the cost of land has risen and does, to some extent retard building activity—thereby giving rise to conditions of acute shortage in housing—other equally cogent factors have played not a less important part in impeding growth of housing. The cumulative effect of all these forces has been an almost complete cessation of building activity. To summarise these factors are: (*a*) high cost of land, (*b*) high cost of materials, (*c*) high cost of labour, and above all (*d*) scarcity of materials. Consequently private enterprise which expects reasonable return on its capital out-lay cannot be expected to cater to the needs of housing of those classes who are unable to pay economic rent.

(6) Public bodies or local authorities like improvement trusts, municipalities, Panchayat boards, etc., with their resources seriously strained owing to mounting expenditure have been helpless witnesses of a progressive deterioration in the condition of housing.

(7) Industrialists cannot finance housing needs of their employees by reason of the large volume of capital—many times their resources—involved in unremunerative activities of this nature. All these factors have acted and reacted upon one another and produced a problem of poor industrial class housing of such a magnitude that it cannot be solved without State initiative.

Different schemes of financing housing programme have been suggested by different authorities:

The Madras Provincial Housing Committee, 1948

The Committee suggested the creation of a Housing Fund in order to finance housing schemes. As the existing resources were inadequate, it suggested the following measures of taxation:—

(*a*) Housing Cess: An extra land-cess of 2 annas in the rupee on the land revenue payable by a person to be reserved and ear-marked for schemes of rural housing. This was estimated to yield a sum of Rs. 1 crore.

(*b*) A surcharge of 20 per cent on Property Tax and Professional Tax in all municipalities and Panchayat boards to be collected by local authorities and paid into the Housing Fund. The surcharge proposed was estimated to yield Rs. 20 lakhs.

(*c*) A uniform cess of Rs. 2 per mensem per employee on all industrial and commercial establishments employing 5 persons and over should be levied for employees having a monthly income of Rs. 200 and under. A rebate should be given for the number of houses conforming to the minimum standards provided by the employer.

(*d*) A part of the increased income accruing to the State by reason of increase in the Entertainment Tax should be earmarked for Housing.

(*e*) A levy of Railway Passenger Terminal tax for entry into any municipal town including the city of Madras. The yield from this source was expected to be Rs. 50 lakhs every year and it should be earmarked for financing housing schemes in municipal towns. The rates recommended were (*i*) anna 1 for 3rd class, (*ii*) annas 2 for Inter class, (*iii*) annas 4 for 2nd class and (*iv*) annas 8 for 1st class.

The U. P. Housing Committee 1948

According to this Committee the construction of the houses should actually be the responsibility of the employers. The difficulty, however, is that the investment will not give a sufficient return to the employer as the rent chargeable should be between Rs. 6 to Rs. 10 per month. The total investment per house will be approximately Rs. 5,000 and assuming that a return of 4 per cent can pay for the interest charges at 3 per cent and ½ per cent towards the sinking fund for repayment of the capital after 60 years and ½ per cent for repairs, the return should be Rs. 200 per year or Rs. 16-8 per month. In addition, the maintenance of the services would have to be realised by taxes on the people as house, water, scavenging and drainage taxes, etc. The Committee was of the opinion that the suggestion from the Government of India to subsidize labour housing at Rs. 200 per quarter if State contribution is also the same, was very low and did not make up for the loss on the investment of capital at Rs. 6-8 per month per quarter or Rs. 78 per year per quarter. Capitalised this sum would represent, at Rs. 2,400 per quarter, Rs. 36,00,000. Government share, if it is divided half and half between the employers and Government, would be nearly Rs. 18,00,000 which is practically sixty per cent of the development charges.

The Committee recommended that the whole development cost should be primarily borne by Government and the actual area of land required for the construction of quarters, which is equivalent to 100 acres, should be leased out to the employers at rent based on actual cost of acquisition and development. In such cases the total investment per quarter of the employer would not be more than Rs. 3,000 and the rent payable for the land can be considered as a subsidy by the employer towards the wage. Further help may also be given by advancing money to the employers at low interest say ½ per cent above the Government borrowing rate.

It was considered that Rs. 10 per month should be the maximum rent chargeable for the minimum standard of housing but in no case should the rent exceed 10 per cent of the workmen's earnings. The difference should be contributed by the employer in the shape of house rent allowance added to the wage. It considered that it would be desirable to make it obligatory for all the factories to provide residential quarters for mill hands but there would arise difficulties of administration.

The total expenditure of the scheme proposed for U. P. was estimated as follows:

	(Crores of Rs.)
Kanpur 10 villages of 1,500 houses at Rs. 5,000 (Target 25,000)	7.5
10,000 single quarters at Rs. 1,500	1.5
Other districts—10,000 family quarters at Rs. 4,000	4.0
Total	13.0

The expenditure was to be met jointly by the employers and Government.The Government share could be the cost of development for 10 villages in Kanpur, *i.e.*, 3.1 crores of rupees, while the full cost of construction would be borne by the employers with the help of a loan from Government, if necessary.

The Committee considered that the expenditure required for housing in other districts should be fully borne by the employers and Government help may be limited to help in Land Acquisition and loans at low interest in financing the construction.

The National Planning Committee

The Committee was of the opinion that the total financial obligation cannot be shouldered exclusively by any one of the agencies considered appropriate for providing accommodation, namely the State, local authority, employers and private bodies. It said that the element of private profit to the house-builder or house-owner must be controlled if not eliminated altogether. Rent Control must, therefore, follow as a matter of course and be a permanent integral feature of the National housing system.

The Committee recommended that the financial responsibility must be shared and should not fall exclusively on any of the parties concerned. The State, the employer, or the private enterprise providing housing building for profit; the general citizen and tenant; and the local authority benefitting from such occupation must all share in the cost as well as the return, directly or indirectly.

As regards method for shouldering the immediate financing obligation and for recouping the same, it suggested that proposals of the Government of India to grant a subsidy of 12½ per cent subject to a maximum of Rs. 200 per house should be supplemented by a similar subsidy of 12½ per cent subject to a maximum of Rs. 200 from the local Government or municipality, or some statutory corporation or a building society. If the entire capital cost of the housing together with the amenities and equipment required to be installed is impossible to be provided by a single body or authority from its current resources, recourse may be had to borrowing a long term loan on low interest to be paid off by equal instalments in 50 or 60 years.

In Britain where housing need is very much more urgent and intense, a long term loan is proposed which would be utilised for housing and equipping it with the necessary amenities. It is necessary to bring out the essential point of the British scheme, which is "the annual subsidy given by Government and the local authority plus a reasonable rental fixed with reference to the occupants' capacity to pay would over a period of 60 years cover the capital cost, repairs and maintenance and amortization." This principle can be given wide application in India if an extensive scheme of co-operative housing societies can be started.

The actual construction of housing would be left to local authorities who will then recover the cost of the actual house room plus the services, utilities and amenities going with the house, from the tenant in the shape of rent which will be the occupier's contribution to the cost.

The loan is proposed to be repaid over a period of 60 years, which would, therefore, allow a very much lower rate of amortisation so that the rent exacted from the tenant or occupant will be relatively small and well within the ability of the average worker to pay.

If housing service is viewed as an integral part of the National plan, there would be no difficulty in believing that the ability also of the tenant or worker will progressively improve as the plan unfolds itself thus raising the latter's capacity to bear the burden.

To the State also, or the Agency which provides the housing, the burden would become easily bearable not only because of the share the State will take from the wealth of the community, resulting from the plan taking effect but also because of the very long term over which the repayment of the capital with interest is spread.

The Bihar Housing Committee

The Government of Bihar formulated a ten-years' programme to house one lakh of industrial workers as a maximum target. The scheme envisaged construction of standard type of houses as recommended by the Industrial Housing Sub-Committee of the Government of India. As for financing the scheme the following four proposals were suggested. (1) levy of some tax on employees, (2) financing the scheme from the State Exchequer, (3) levy of some tax on employer and (4) levy of tax on consumers.

Another proposal was that subsidy might be granted to the employers for the construction of houses out of the 'Bihar Industrial Workers' Welfare Fund' raised out of cess levy on basic materials. The question of grant of subsidy gave rise to the question of : (*a*) rate of subsidy ; and (*b*) conditions to be imposed before the grant of subsidy. The rate of subsidy was to differ according to the types of works undertaken, such as (*i*) construction of houses, (*ii*) ancillary services, (*iii*) secondary recurring expenses, (*iv*) administrative costs, etc. As regards the conditions to be imposed on the employers, it was proposed that one-third of the subsidy might be granted after half the work was completed and full subsidy was to be given only on completion.

Loan Fund

In case of those industries which cannot afford to launch the programme due to financial disabilities, loans should be granted as advance on a suitable rate of interest. This should be sparingly used against secured debts. Before granting any such loan the Government must be satisfied that the particular industry cannot afford to build up their own houses and the efficiency is being affected due to lack of housing provisions. This may also be done on a regional basis and the rate of interest can be fixed after the study of the economic factors prevalent in the country. The rates may, however, be fixed on a sliding scale on (1) loans to be recovered in less than five years, (2) loans for more than five years but less than fifteen years and (3) loans for more than fifteen years.

Environmental Hygiene Committee (1948)

This Committee suggested that the target should be to build 560,000 family units per year for a period of 5 years. 30 per cent or 168,000 family units can be built by small enterprise without any Government aid other than the release of building materials. The rest (3,92,000 per annum), may, the Committee suggested, be built by public utility corporations so that they may effectively play their role of bringing down rents and eliminating speculation in land value. The Committee was of the opinion that Government should acquire suitable plots for satellite towns which may involve a non-recurring sum of Rs. 10 crores. The Committee also suggested that the housing corporation will have to make investment ranging from Rs. 26 lakhs to Rs. 2 crores on housing projects and will get a net rturn of over 3½ per cent. The Committee thought that 2 per cent of the housing programme, involving an annual outlay of about 7.84

crores on about 11,000 houses in all the States put together, may be about the maximum Government could afford to undertake. The Committee recommended that a token grant of Rs. 4,000 be made for water supply and other improvements (to slum or *bustee*). According to the Committee a provision of Rs. 50,000 to Rs. 2,00,000 in the budget of each State will suffice if the expenditure in each slum is shared equally by the State Government and the municipality concerned.

Central Government Schemes to raise funds for Industrial Housing

The Government of India have formulated several schemes from time to time.

(*i*) In 1946 the Government of India evolved a tentative scheme under which they offered a subsidy of Rs. 200 per house provided the State Government also paid a like amount. The subsidy, however, was considered too low owing to high building costs and there was no response.

(*ii*) Another scheme was that the cost should be shared between the Central and the State Government, employers and the workers in the following manner :—

1. Worker	A
2. Employer	2A
3. State Government	4/3A
4. Central Government	8/3A

This scheme too was given up as the State Governments could not finance these schemes.

(*iii*) At a later stage, Government thought that the entire capital should be raised by a loan and the recurring charges estimated at 7½ per cent (3 per cent interest, 2 per cent sinking fund and 2½ per cent other charges) should be shared by the Central and State and both sides of the undertaking on the following basis :—

	Per cent	
Worker	3	(subject to 10 per cent of the earning)
Employer	1½	
Central Government	2	
State Government	1	

These conclusions were considered by the Labour Ministers' Conference in May 1948 and it came to light that the State Governments could not even contribute 1 per cent of the charges.

(*iv*) As the above schemes did not materialise, the Government formulated another scheme. Under this scheme the idea was that a Capitation tax of Rs. 3 per month per worker employed and not provided with suitable housing should be levied. It was decided that (1) the capital required for industrial housing should be raised by a loan, (2) the recurring charges of 7½ per cent should be borne by the levy of a capitation tax at the rate of Rs. 3 per worker per month in factories, Rs. 1-8 in the case of workers in plantations and (3) a Central Housing Board be set up to implement this housing scheme. The idea was to construct 7.25 lakh houses for factory labour and 1.98 lakh houses for plantation labour. This scheme also was not considered feasible.

(*v*) In 1949 a revised scheme was drawn by the Government of India and they proposed to raise the funds required for the scheme as follows :

> Two-thirds of the required capital to be provided by the Union Government as an interest free loan and the remaining one-third by them as 3 per cent loan. The recurring charges were estimated at 7½per cent (3 per cent on account of interest, 2 per cent sinking fund and 2½ per cent maintenance). If interest on capital provided by the Central Government free-of-interest was excluded, the total worked out to 5½ per cent of the capital cost. Of this the employers' share was at 3 per cent of the cost in the form of rent for the houses allotted to their workers and that of workers was payment of rent at 2½ per cent of the cost, subject to the limit of 10 per cent of their wages.

The Planning Commission, who later examined this scheme, recommended the following basis for raising the funds required for the scheme :—

		Estimated Receipts (Crores of rupees)
(*i*) From Employers	2½ per cent of the total wage bill (inclusive of dearness allowance) annually as an outright grant towards the rent of each house allotted to their employees	3
(*ii*) From Employees	2½ per cent of their monthly wages (inclusive of dearness allowance) as contribution towards a Compulsory Savings Scheme, the amount so contributed by workers to be treated as loan at 3 per cent interest ..	3

(iii) From Central Government.	Annual Grant	3
(iv) As loan	Guaranteed by the Central or State Government with interest at 3 per cent	3

How the figure of 3 crores from employers was arrived at will be clear from the table below which shows the number of industrial workers and the approximate wage bill for different centres in India.

	No. of workers.	Average monthly wage.			Total annual wage bill
		Rs.			(Rs. in crores)
1. Bombay					
Bombay	3,41,310	93	0	0	38.09
Ahmedabad	1,51,400	100	8	0	18.26
Sholapur	36,070	81	0	0	3.51
Bombay (Suburban)	26,360	90	8	0	2.85
Total ..	5,55,140	..			62.71
2. West Bengal					
Calcutta	21,255	71	0	0	1.81
24-Parganas	3,61,775	56	0	0	23.88
Howrah	1,34,020	70	0	0	11.26
Hooghly	72,890	53	0	0	4.64
Total ..	5,89,940	..			41.59
3. Madras					
Madras	47,660	69	0	0	3.95
Coimbatore	46,370	63	0	0	3.51
Mathurai	25,980	63	0	0	1.97
Visakhapatnam	14,370	60	0	0	1.03
Total ..	1,34,380	..			10.46
4. U. P.					
Kanpur	1,04,060	77	0	0	9.61
Agra	20,500	66	0	0	1.62
Saharanpur	7,450	66	8	0	.59
Aligarh	6,000	77	0	0	.55
Total ..	1,38,010	..			12.37

5. Madhya Pradesh					
Nagpur	23,530	64	8	0	1.81
Jabalpur	22,000	69	0	0	1.82
Wardha	7,300	66	0	0	.58
Amraoti	8,230	66	0	0	.65
Total ..	61,060	..			4.86
6. Bihar					
Manbhum	17,750	61	0	0	1.30
Monghyr	16,950	70	0	0	1.34
Darbhanga	8,170	65	0	0	.64
Total ..	42,870	..			3.28
7. Punjab					
Amritsar	11,560	78	0	0	1.08
Ambala	7,360	69	0	0	.61
Jullundur	3,660	68	0	0	.30
Total ..	22,580	..			1.99

Summary

1. Bombay	5,55,140	..	62.71
2. West Bengal	5,89,940	..	41.59
3. Madras	1,34,380	..	10.46
4. U. P.	1,38,010	..	12.37
5. Madhya Pradesh	61,060	..	4.86
6. Bihar	42,870	..	3.28
7. Punjab	22,580	..	1.99
Total ..	15,43,980	..	137.26

2½ per cent of the total wage bill for the above areas—3.43 crores

The employers were opposed to both the schemes as they thought that the houses built will be owned by Government or some Statutory Housing Board and not by themselves. So another scheme was formulated by the Government of India providing for 20 per cent subsidy from the Central Government, including the cost of land to the employers. Under this scheme the houses were to be the property of the owners, the Central Government was only to lay certain conditions regarding recoveries from workers, specifications of houses to be built, etc. The State Governments and the employers were also consulted in regard to this scheme.

The details, which had been worked out, showed that according to the scheme which contemplated construction and ownership by State Governments or statutory local authority for a house costing Rs. 3,000 to Rs. 7,000, the range of deficit in recoveries per year per house by way of rent would be from Rs. 80 to Rs. 171. This was proposed to be borne by the employer. Under another scheme under which the employer had to make a house with a 40 per cent contribution towards building costs and Government was to give a subsidy of 20 per cent and advance a loan of 40 per cent at 4 per cent, the deficit per house per annum would be between Rs. 63 to Rs. 92. The other difference between the two schemes was that whereas in the first scheme the ownership of the house was to vest in the State Government or a local authority, in the second scheme the house was to belong to the employer.

As an *interim* measure, however, the Central Government advanced the following loans to various States for industrial housing :—

State	1950-51	1951-52
	(Rupees in lakhs)	
Bombay	60	44
Bihar..	10	30
Madhya Pradesh	10	10
Orissa	10	10
Assam	..	10
Mysore	..	20
Hyderabad	..	20
Travancore-Cochin..	..	10
Punjab	10	5
Madras	..	9
	1 Crore.	1.68 Crores

Against the loan of rupees one crore advanced to the States during 1950-51 for industrial housing, 1,712 houses were built in Bombay, 261 in Orissa, 400 in Madhya Pradesh and 100 in Bihar. A provision of Rs. 9 crores was made for 1952-53. Full details of the scheme have already been given in the previous chapter. The financial aspect of the scheme is given below.

The Government proposes to allocate this amount as follows :—

	(Rs. in lakhs)
Subsidies	324.000
Loans	392.625
Total	716.625

The break-up of the distribution of the above sum to various Governments and other organisations by way of subsidies and loans will be :—

	Rs. in lakhs
I. Subsidies	
(*a*) To the State Governments at the rate of Rs. 1,350 and Rs. 2,250 respectively for one roomed single storeyed and one-room multi-storeyed tenements	186.75
(*b*) To employers and co-operatives of industrial workers	137.25
	324.00
II. Loans	
(*a*) To State Governments..	186.750
(*b*) To employers and Co-operatives of industrial workers	205.875
Total ..	392.625
Grand Total ..	716.625

The loans granted by the Central Government will be repayable, in the case of the State Governments and statutory housing boards within 25 years, and in the case of employers and co-operative societies of industrial workers within 15 years. The Central Government will bear the major share of the financial burden of the housing programme, but it is expected that the State Governments will meet any shortfall in the maintenance charges of the housing estates to be constructed by them or by the housing boards. The establishment charges on the schemes taken up by the State Governments, housing boards or any agency other than private employers, will also be borne by the State Government. The State Governments would also persuade the local authorities to allow a rebate of at least 50 per cent of the general rates and house-tax at least for 10 years in the beginning so as to keep the rents at a low figure. The houses to be constructed will be of two types : (*i*) one roomed single storeyed tenements and (*ii*) one-roomed tenements in multi-storeyed buildings.

In their final Five Year Plan, the Planning Commission have made a total provision of Rs. 48.69 crores (38.50 will be Central expenditure and 10.19 that of States).

It will be interesting to see how housing schemes have been financed in foreign countries. This has been shown in a separate chapter.

CHAPTER LXXV

HOUSING LEGISLATION IN INDIA

The housing legislation in India may be traced as far back as 1898 when the Bombay Improvement Trust was first constituted in accordance with the City of Bombay Improvement Act, 1898, enacted for the improvement and future expansion of the City of Bombay, after a terrible visitation of plague in 1896. During the year 1915, the Government of Bombay enacted the Town Planning Act, 1915, which was designed on the lines of the Town Planning Act, 1909 of England. The object was to give powers to local authorities to deal with the question of construction and extension of towns in such a manner and on such an orderly basis as would prevent the future rising up of areas which on account of their insanitary conditions, ultimately would require demolition and reconstruction. The Calcutta Improvement Trust was similarly set up in 1912 under the Calcutta Improvement Act, 1911, and owes its inception to the recommendations of a Committee on the epidemic of plague in the city in 1896. After prolonged discussion, the Calcutta Improvement Act was passed in order to "make provision for the improvement and expansion of Calcutta by opening up congested areas, laying out or altering streets, providing open spaces for purposes of ventilation or recreation, demolishing or constructing building, acquiring land for the said purposes and for the re-housing of persons of the poorer and working classes displaced by the execution of improvement schemes, etc."

In U. P. the main legislation is the U. P. Town Improvement Act, 1919 and the history of this legislation dates back to 1907. For the first time in the history of this State the question of town planning came up in 1907, when the Government of India, in consequence of the recommendations of the Plague Commission drew attention of all the State Governments to the provision of model dwellings and the preparation of schemes for the remodelling of congested areas. The State Government then secured a recurring grant from the Government of India and decided to promote Town Planning in three big cities, *viz.* Lucknow, Kanpur and Allahabad. A Trust in favour of the municipal boards of these cities was created under a Trust-deed. Under the provisions of this deed the municipal boards of these cities were given Rs. 21 lakhs each to be held in Trust for acquiring land and carrying out the schemes "for construction of broad thoroughfares and other works for relief of congested inhabited areas." In 1908 the sanitary conference recommended that separate statutory bodies be formed in these cities to carry out the work of the town planning. Ultimately in 1918, the State Government formed a Committee to consider and formulate proposals for legislation regarding town planning. The Committee on September 8, 1918, submitted a report with a draft of the U. P. Town Improvement Bill which became a law on November, 5, 1919. This Act provided for establishment of improvement trusts in municipal areas and the areas adjacent to them. The functions of these Trusts are to frame and execute improvement schemes for different areas in a city, by acquiring land and remodelling the areas.

The functions of these Trusts were to carry out sanitary improvement in big towns expeditiously and to make provision of housing accommodation for their citizens. But none of them could achieve any appreciable progress in improving the housing conditions as their functions were mainly confined to the beautification of the cities and sometimes to ambitious schemes of development. The acquisition of land, the clearance of slums, lighting of streets, arrangements for proper drainage and water supply undertaken by the Trusts were primarily intended for combating the epidemic diseases and proper attention was not paid to the conditions of living of the inmates of tenements or houses built upon the Improvement Trusts' plots. Details regarding the activities of various Trusts have, however, been given in the 'Improvement Trust' chapter.

During the year 1920, the Government of Bombay set up the Bombay Development Committee for going into the question of developing the city of Bombay. The Committee suggested that some special measures should be undertaken, but action on the Committee's report had to be deferred due to the outbreak of the first World war. After the cessation of hostilities it was felt that the responsibilities devolving on the municipality and the Improvement Trust were too heavy and they could hardly undertake any ambitious scheme of housing. As suh the Government of Bombay established a Development Department and Directorate, the functions of which were, among other things, to undertake the construction of 50,000 one room tenements for housing the industrial workers, to carry out the Back Bay Reclamation Scheme, to deal with acquisition of land, supply of building material and to purchase areas and to deal with supply of water and electricity, etc. Thus Government tried to increase the amount of land for residential purposes. It opened up suburbs and constructed *chawls* for the workmen. It also offered loans to co-operative societies for the workmen. The *chawls*, however, were not occupied by the working class as the rents were high. The programme was revised. The Back Bay Reclamation Scheme ended in failure. It was, however, the first systematic attempt at providing houses for the industrial classes on a large scale, with mass production of standard pattern. In 1920 the Bihar and Orissa Mining Settlement Act was placed on the Statute Book. In accordance with this Act a Housing Board, known as Jharia Mines Board of Health, was set up to prepare and carry out schemes for the provision of suitable housing accommodation for coal miners. The Board has framed certain byelaws which are binding on the colliery owners. The passage of the Bombay Housing Act, 1948 and the Mysore Labour Housing Act, 1948 has opened a new chapter in the domain of housing legislation in this country. The States of West Bengal, U.P., Madhya Pradesh, and Orissa have also enacted town planning laws recently. The salient features of these laws are briefly given below :—

Bombay

As stated above, the need for housing accommodation has been acutely felt in this State during and since the last World war, particularly in urban and industrial areas. When the Congress Ministry took office in 1946, it was one of its objectives to provide adequate housing accommodation to the public, especially for low-income groups and industrial workers. A Bombay Provincial Housing Board was accordingly set up in 1946 for formulating a long-range housing policy and undertaking an immediate programme of direct construction, the target being 1,25,000 tenements. As the housing programme included development of land and other schemes for which the Provincial Housing Board had no statutory powers, it became necessary to establish a statutory housing board possessing the necessary independence and flexibility but subject to Government control in matters of policy. The Bombay Housing Board Act, 1948, was therefore, enacted into a law in 1948. The Bombay Housing Board has been set up under the Act and is functioning form the 15th January, 1949. The State Government also passed the Bombay Building (Control on Erection) Act, 1948, under which permission to extend industrial premises is granted only on the condition that the employer will provide housing for 60 per cent of the labour to be employed on account of expansion. Detailed functions are given under the Bombay chapter.

Uttar Pradesh

Under the provisions of the U. P. Town Improvement Act, 1919, an Improvement Trust was established in Kanpur in 1919. During the war the population of this city increased to four times of the original population, and it was found that the provisions of the U.P. Town Improvement Act, 1919 were inadequate to cope with the special Town Planning problems confronting the city. Government, therefore, decided to set up a broad-based Development Board in the city and enacted the U. P. Kanpur Urban Area Development Act, 1945. The majority of the provisions in this Act are similar to those of the Town Improvement Act but it differs in so far as the constitution of the Development Board and its powers are concerned. There is a lesser control of the State Government over it. This Act also gives special means to the Board to improve its financial position.

In 1948, Government decided to set up two new Improvement Trusts at Agra and Banaras and felt that the provisions of the U. P. Town Improvement Act required certain amendments in their application to these two cities. Government, therefore, enacted the U. P. Town Improvement (Adaptation) Act, 1948, which provided for certain amendments in the U. P. Town Improvement Act 1919 in its application to certain areas specified by the State Government. The amendments allowed the Improvement Trusts to levy surcharge on stamp duty and gave it more powers with regard to its hold on certain functions of the municipal board.

Since the assumption of office by the Congress Ministry the Town planning work in the State has made rapid progress. A Town and Village Planning office has been established under an American expert. Government are now contemplating to enact a comprehensive Town Planning and Housing Bill, which will take the place of all the above enactments. The outstanding features of the Bill are that it provides for the establishment of a statutory Provincial Town Planning and Housing Board under a Director of Town Planning and Housing as its President, a membership consisting of certain officials connected with the departments of town planning and sanitation, two representatives of local bodies and three selected representatives of the State Legislature. It also makes provisions for sanitary housing, provision of cheap credit facilities and building materials, special facilities for poor and working class people, compulsory employment of a qualified planner by local bodies, advance provision of accommodation for dehoused persons, abatement of overcrowding, periodical inspection by local authority to review housing conditions, encouragement of co-operative housing societies and trusts, etc. In addition to a Provincial Town Planning Fund, it empowers local authority to have separate local town planning funds and raise loans in open market by issuing bonds and debentures and also permits a local authority to join with one or more than one other local authorities in constituting a joint town planning committee. The Bill can be made applicable to rural areas as well by Government. A Bill to provide welfare measures including housing for workers is also under the State Government's consideration.

In addition to the above Acts and Bills, a slum clearance Bill is shortly to be introduced in the U. P. Legislative Assembly. The Bill, it is understood, will devise measures by which the owners of 'Ahatas' in Kanpur and elsewhere could be compelled to improve and reconstruct them. If they fail to do so within the prescribed period, the Government will have power to acquire them for the purposes of improvement and reconstruction.

West Bengal

The West Bengal Land Development and Planning Act, 1948, was designed previously for rehabilitating refugees from East Pakistan, though its terms are wide enough to cover all kinds of physical planning of new towns, villages and agricultural colonies. A public purpose is defined as (*a*) settlement of immigrants, (*b*) establishment of towns, model villages and agricultural colonies, (*c*) the creation of better living conditions in urban and rural areas and (*d*) the improvement of agriculture forestry, fisheries and industries. Where this purpose is established and a scheme prepared by a prescribed public authority or a local authority or a company is sanctioned by Government, the latter allows land to be acquired at a price pegged to a date which is prior to the period when the full effect of the inflationary rise of price was felt.

Madhya Pradesh

Prior to 1948, this State had no legislation regarding town and country planning. In urban areas municipal committees had their building byelaws for regulating construction of buildings within municipal limits. Recently, the Town Planning Department of this State has framed model building byelaws for the guidance of local bodies in the State.

In 1948, the State Government brought on their Statute Book the following two Acts :—

(*i*) Central Provinces and Berar Regulation of Uses of Land Act.
(*ii*) Central Provinces and Berar Town Planning Act.

The Regulation of Uses of Land Act is designed to check the insanitary urban development by the side of roads in rural areas. Under the Act, the Deputy Commissioner is the controlling authority who, with the previous sanction of the State Government can declare any land adjacent to any road to be a controlled area, in which case construction work of buildings in that area will be regulated according to a Master Plan to be prepared by the Town Planning Expert of the State Government. The Deputy Commissioner has also powers to acquire lands by a speedy process on payment of compensation. Compensation can also be awarded in certain cases to claimants for refusal to allow buildings. Existing village sites and temples, tombs, etc., are excluded from the scope of the Act. Government have also got the rule making power.

The Town Planning Act has been enacted to control the haphazard development of towns and cities and also to enable local authorities to take up Town Planning and Development schemes within their jurisdiction with a view to provide necessary civic amenities for the healthy growth of towns. The owners of lands within and around the scheme area have to share the cost of the enhanced value of the land due to proposed development. Provision has also been made for the execution of joint town planning schemes by more than one local bodies, if they so desire.

Orissa

The State of Orissa was constituted on the 1st April, 1936 and no Town and Country Planning Act has as yet been passed. Government have, however, taken up legislation of a Town Improvement Trust Act which contemplates constitution of improvement trusts with powers to deal with improvement as well as development schemes like general improvement, rebuilding, rehousing, street, deferred street development, housing accommodation, town expansion, drainage, etc. The Government have under their consideration "The Town and Country Planning Bill."

The existing provisions of control over building in towns are included in the Municipal Acts and Bye Laws framed thereunder whereby a person has to give notice before he begins to erect a new building or re-erect an old building and make material alterations in it and has to conform to the conditions to be laid down by the municipality.

Regarding the planning of villages, the Orissa Gram Panchayats Act recently passed empowers the Gram Panchayats to regulate the construction of new buildings and extension of existing buildings. Under the rules framed under the above Act the Panchayats may prepare model plan for villages in consultation with the District Health Officer. They may direct that no building shall be erected or re-erected or added to in advance of an alignment to be prescribed by the Gram Panchayats. The Gram Panchayats have also power to prescribe the space which shall intervene between any new or enlarged building and a road in the village. The Gram Panchayat Act and the rules thereunder have been enforced.

Mysore

The Mysore Labour Housing Act, 1949, provides for the constitution of a Corporation consisting of representatives of Government, employers and employees and also of the Legislature to prepare and carry out schemes for the provision of suitable housing accommodation for employees. The finance required for the scheme is to be derived from the levy of Capitation tax on employers, rents from the employee tenants, grants from Government and loans. The Corporation has been invested with the powers of land acquisition and will be responsible for keeping the houses under its control in good habitable condition. The Act provides the conditions under which the houses may be constructed by employers for their employees and also the conditions relating to the rights and liabilities of employers and employees. Provision has also been made to empower Government to require employers to provide housing accommodation to workers employed on works or occupations notified by Government when they have no dwelling of their own.

Views of Various Committees

The recommendations of various Committees and individuals in regard to the housing legislation in India are given below :—(1) The Bhore Committee has recommended that " In India a long term policy, comprehensive in scope and modern in outlook is essential for a satisfactory solution of the problems. The objective to be attained is the creation of houses in adequate size and in sanitated areas equipped with all the facilities necessary for community life. In the execution of the housing programme Government and public authorities should perform the following functions :—

(*i*) the planning, execution and regulation of housing programme, including participation by local authorities and improvement trusts in house construction and maintenance,
(*ii*) the grant of financial assistance by long term loans at the low rates of interest and grants-in-aid,
(*iii*) the prescription and enforcement of standards and
(*iv*) the promotion of housing research."

The Committee was of the view that a comprehensive Central Act should be passed and a Ministry of Housing and Town and Village Planning should be set up at the Centre as well as in each State.

2. The Labour Investigation Committee set up by the Government of India in 1945 recommended enactment of an Industrial Housing Act providing for the creation of an all India Industrial Housing Board and State or Regional Boards with appropriate functions. Such Boards should, in the opinion of the Committee, be of a tripartite character and should be required to deal with all questions of housing policy including actual construction, standards of accommodation, finance, ownership, etc.

3. The Madras Housing Committee recommended that legislation on the lines of English Consolidated Housing Act of 1936 should be undertaken in India. The main objective of the legislation should be to apportion responsibility in respect of the housing of the poor, the working classes and families in low income groups upon the various authorities or agencies concerned, to ensure that housing, in general, conforms to the minimum standards prescribed, to end overcrowding, to constitute authorities, wherever necessary, to undertake housing projects and to achieve objects ancillary to the goal of adequate housing.

4. The Industrial Housing Sub-Committee (May 1946) of the Government of India recommended the starting of a housing fund to be administered by a National Industrial Housing Board, including representatives of States, the Centre, employers and labour and other interested parties and laid down the minimum standard of housing.

5. The National Planning Committee recommended that housing legislation in India should provide for the establishment of statutory bodies, namely (1) Central Housing and Planning Board and (2) Provincial Housing and Planning Boards. The former will, in the opinion of the Committee, be concerned with general principles, policy, programme, finance and technique on broad lines, while the latter will guide and control all schemes but not their details. The Committee recommended that both the bodies would undertake necessary legislation. The initiative and execution was in the opinion of the Committee to be delegated to local authorities either district council or municipality or a special statutory body or a statutory sub-committee. Ample power should be vested in the municipality for demolition or reconditioning a building which does not come up to the standard. All matters relating to the fixation of standards, powers for raising capital management of houses, house letting, etc., should also be provided in the Act. The fixation of standards should form a part of the building programme and enactment would naturally go along the line. In the opinion of the Committee, the following minor items also required legislative treatment :—

(1) Management of housing provided by National Service.
(2) Inspection and control of the private owned housing.
(3) Prevention of diversion of the facility from the needy to the non-needy.
(4) Provision of land acquisition.
(5) Change in the Insurance and Co-operative Acts so as to give latitude for loans for middle class housing and for public loans for industrial housing.
(6) Enacting for co-operation between industrialist and experts for practical progress in industrial technique.

6. The Environmental Hygiene Committee (1949) recommended that the States which had no Planning Acts should enact them immediately extending their scope not only to urban areas but to all areas where a housing development on 10 acres or more is contemplated by any authority—municipality, panchayat, Government department, public company, factory or housing co-operative society. The Committee also observed that the existing Acts in some States were inadequate and recommended that such Acts should be amended. In the opinion of the Committee the State Town Planner should be on the staff of the Ministry of Health as an adviser and in the practical execution of large housing projects, an engineer with knowledge of

public health engineering, including town planning would be more suitable than a pure town planner to direct and execute the work. The Committee further recommended that State Housing Boards may be established as statutory bodies—with the Chief Public Health Engineer as the Chairman, a Financial Adviser and two or three members chosen for their administrative ability and integrity and appointed for a term of years. These Boards may, in the opinion of the Committee, be authorised to float loans at ½ per cent above the Government borrowing rates and use them for land acquisition. They may be authorised also to license public housing corporation or to engage in housing activities themselves.

7. The Planning Commission are of the view that the basis of assessment of compensation in the Land Acquisition Act of 1894 requires modification. At present the cost of acquiring slum areas is prohibitive because not only their market value but an additional compensation at 15 per cent has to be paid in consideration of the compulsory nature of acquisition. This should be modified and the compensation should be based on the use to which the land is put on the date of the notification. As the normal procedure of land acquisition is often very protracted, the Act should also be amended so as to provide for a speedier procedure for taking possession of lands on which housing projects are contemplated or where slum areas are to be cleared.

8. Shri R. B. Gupta, in his book "Labour and Housing," has suggested that every State should raise a Housing Fund by issuing Government Bonds, from which loans could be given (*i*) to municipalities and other local authorities, both for slum clearance schemes and the direct construction of houses and (*ii*) to limited dividend housing societies, for the purpose of constructing houses. He has also suggested creation of local housing boards under the direct control of the States for carrying out *inter alia* the provision of the restrictive housing laws or the construction of houses within their jurisdiction.

As announced by the Hon'ble Minister for Works, Housing and Supply in the Parliament in June 1952, the Government of India are contemplating to bring forward a comprehensive Housing Bill. The enactment of a National Housing Act was also discussed at the joint conference of the State Governments', Employers' and Employees' representatives convened by the Central Government in the last week of August, 1952. The Act will ensure uniformity of housing policy throughout the country and remove difficulties arising under the Land Acquisition Act, the Co-operative Societies' Act or the various Rent Acts. This legislation when enacted, would also deal with the subject of Town Planning.

CHAPTER LXXVI

RENTS AND RENT CONTROL ACTS IN VARIOUS STATES

Urban Land Values

The rapid growth of population in the principal industrial and commercial towns, and the consequent growing demand of land for house accommodation and various other purposes have led to an enormous increase in land values. The amount of land in the towns being limited, this increased demand had to be met, to a large extent, by crowding together buildings and by piling one storey over another. Details about the serious congestion in towns have already been given. Not only too many men live in each house, but too many houses are crammed together in a limited space. The bigger cities, like Bombay and Calcutta, are slowly giving place to regular lines of two, three and four-storeyed flats and tenement houses, instead of the ordinary detached dwelling houses so common in country places and smaller towns. While municipal and local governments are responsible for a larger part of the dirt and squalor and the disordered growth of a town, high rents and low wages play no mean part. High rents are not only a direct hardship upon the small wage-earners, but indirectly leave a most disastrous effect upon their health and well-being.

House rents in India

Home owning is an essential characteristic of Indian life but every family cannot afford to build its own house and many families have to live in a city or town permanently in rented houses and thus a builder landlord comes into the picture. There are two objects of investment, *viz.*, to obtain interest on the capital invested and to provide security for that capital. To keep the rental of the building as low as possible it is obvious that cost of land, cost of construction including labour and material costs and of interest and amortisation of capital invested in house property should be kept as low as possible.

Economic Rent

In the ordinary sphere of economics the rent commanded by a house built for a particular class in the community will primarily be the rent the class has been accustomed to pay, and that sum should be, in the first place, such as to give a net income of not less than the current rate of interest on the capital invested on the building after meeting local rates and taxes and setting aside a reasonable sum for repairs and depreciation. This sum may be termed the economic rent of the house. Taking the rate of interest on the capital at 3 per cent, municipal taxes, etc., at 1½ per cent of the capital cost and the charges for maintenance, ordinary repairs and depreciation at another

1½ per cent, in all 6 per cent gross on the capital cost may be taken as the minimum economic rent of a dwelling. In the present conditions, a house with the prescribed minimum standards will cost not less than Rs. 5,000. Six per cent on this will come to Rs. 300 and so the economic rent of a dwelling costing Rs. 5,000 will be about Rs. 25 per month.

The basis on which to charge rent

The carrying out of a housing programme presents not only the task of constructing an adequate number of houses of the standard required, but also the problem of deciding what rent the worker can afford to pay for his accommodation. If the rents charged are too high, the worker either cannot afford to use the houses or will be obliged to share the accommodation with others or take in boarders or lodgers; the latter course leading to the overcrowding and deterioration in housing conditions. Obviously, houses must be provided at rents within the workers' capacity to pay.

Thus the problem of recovery of rent from the workers for the houses allotted to them is a very important problem and it falls into two parts :—

(1) whether any rent is to be charged at all, and
(2) if any rent is charged, the principles on which the rent is to be assessed.

Grant of rent-free quarters to the employees has been opposed on the following grounds :—

(*i*) With rent-free quarters a parasitc classes of workers comes into being.

(*ii*) If no rent is charged from the workers they will not realise that the houses have been built for their good and the employers also do not feel it obligatory on them to maintain the same

(*iii*) The rent will form a recurring source of income and part of the cost of maintenance can be met from this source. Otherwise the finances of the Government and the employers will be highly affected.

(*iv*) Rent free accommodation is demoralising and makes persons irresponsible.

Coming to the second part of the question, *viz.*, the principle on which the rent is to be fixed—it should be that the burden of rent should fall equitably on the shoulder of every worker.

Two definite views were considered by the Industrial Housing Sub-Committee of the Standing Labour Committee as to the basis on which rents should be charged. Some members were of the opinion that there should be fixed rent for the accommodation provided. It was argued that if rents were charged at a percentage on the worker's wages, it would create a lot of discontent since rents for the same accommodation would vary considerably and a worker paying a higher rent than his neighbour for the same accommodation would not understand the reason. A further difficulty was that of correctly assessing the income of workers not employed on a regular wage in factories and other well recognised commercial undertakings. To avoid these difficulties it was suggested that houses should be classified into three grades, A, B and C and rents charged according to each grade on the basis of Rs. 2 per 100 sq. ft. of the floor space in the living rooms in the lowest grades, the other grades being assessed by percentage increase on the basic rate. It was argued that Rs. 2 per 100 sq. ft. of room space was not unreasonable rate and would not be beyond the paying capacity of the lower paid workers, especially workers in the larger cities who get higher rates of pay than workers in smaller centres. On this basis the rent of a minimum standard house would be Rs. 4-15-0 per month. The great majority of the workers in cities like Bombay and Calcutta already pay more than this for one small room in a *chawl* or *bustee*.

Another argument against fixing rent on a percentage of the worker's wages was the question of illness. For example should the principal worker be ill or not fit for work for varying stretches of time, or should an ageing head of a family remain out of employment for a long stretch of time, it would not be possible to recover any rent for the house from the time his wages ceased. On the other hand, the members representing labour were of the opinion that rents should be charged at a percentage of the worker's wages using a sliding scale ranging from 2 per cent of the wages in the case of workers earning below Rs. 20 per month to 10 per cent of the wages in the case of workers earning more than Rs. 50 per month.

Another contention was that in view of the special nature of the work that scavengers and similar municipal workers are called upon to do and the great difficulties they are confronted with, these workers should be provided with rent-free quarters.

The Committee was unable to arrive at any agreed decision as to the basis on which workers should be required to pay rent.

Rents to be recovered in Subsidised Housing

The maximum rent charged for any building constructed out of public or quasi-public funds should not exceed 10 per cent of the occupier's earnings, including those of the dependents. But this should in no case be less than the cost of maintenance of the building, services and taxes, even where the value of services and taxes exceeds the 10 per cent limit. The allotment of houses to low income groups should ordinarily be based on the number of inmates in the house and not on the basis of incomes. Houses having accommodation in excess of the minimum standard of 240 sq. ft. of floor space may, however, be allotted with referenec to income standards so as to make the scheme financially sound. Subsidised houses for low income groups should be allotted to the low income groups.

Views of the U. P. House Inquiry Committee

In the opinion of the Committee the construction of the houses should be the responsibility of the employers. The difficulty, however, is that the investment will not give sufficient returns to the employer as the rent chargeable should be between Rs. 6 to Rs. 10 per month. The Committee recommended that the development cost should be primarily borne by Government and the actual area of land required for the construction of quarters which is equivalent to 100 acres should be leased out to the employer at rent based on actual cost of acquisition and development. In such cases the total investment per quarter of the employer would not be more than Rs. 300 and the rent payable for the land can be considered as a subsidy by the employer towards the wage. Further help may also be given by advancing money to the employers at low interest say ½ per cent above the Government borrowing rate. It was considered that Rs. 10 per month should be the maximum rent chargeable for the minimum standard of housing but in no case should the rent exceed 10 per cent of the workmen's earnings. The difference should be contributed by the employer in the shape of house rent allowance added to the wage

Views of the Madras Provincial Housing Committee

The Madras Provincial Housing Committee considered that reasonable house rent should be 10 per cent of the pay for income groups of Rs. 200 and below, 12½ per cent in the case of income groups above Rs. 200 but below Rs. 500 and 15 per cent of the income in the case of income groups above Rs. 500. Based on these considerations only persons drawing above Rs. 200 will be in a position to pay the economic rent for a dwelling with the prescribed minimum standards. As suggested by the Bhore Committee, the Madras Committee recommended that in the present conditions, Rs. 200 should be fixed as the upper limit of the low income groups so far as the State of Madras was concerned. Persons drawing income of Rs. 200 and below could not pay economic rent. It is only in respect of low income groups that State assistance for house building is most necessary.

Rents prevalent in important towns and industrial areas

Bombay

Before the war an ordinary labourer earned Rs. 20 to Rs. 25 p. m. in a cotton factory but had to pay Rs. 4 to Rs. 7 p. m. as rent for a dark and ill-ventilated room, hardly 10′ × 10′. Rent Restriction Act was passed in 1916. Before the war average percentage expenditure on house rent by various income groups such as 30 to 40, 40 to 50, 50 to 60, 60 to 70, 70 to 80 and 80 to 90 was 7.5, 8.6, 7.3, 8.3, 7.4, and 7.5 per cent respectively. The percentage in the case of single men of different income groups, however, was about 7. In general, on an average 1/4th in the case of unskilled labourer was spent on house rent.

The Development Department of the Bombay Government has built 207 *chawls* of 80 rooms each. Further, under the Bombay City Improvement Scheme, the Municipal Corporation has built 11,375 tenements and 2,800 semi-permanent sheds. The rents charged vary from Rs. 5 p. m. per room in the Worli *chawls* to Rs. 8 in the Delisle Road, one rupee extra being charged for all extra corner rooms. Besides this, the Bombay Municipal Corporation owns *chawls* consisting of nearly 5,000 one room tenements. The rentals vary from Rs. 4-15-0 to Rs. 10-8-0 for the *chawls* and Rs. 2-8-0 to Rs. 6 for the sheds. The rents of the textile mill *chawls*, having 4,301 tenements comprising 3,354 single room tenements and 947 two room tenements, vary from Rs. 3 to Rs. 5.

According to the Bombay Labour Office enquiry of 1938, the percentage of rent to income in the city of Bombay varied from 8.91 in the income group below Rs. 100 to 42.67 in the lowest income group. It was observed that as the income increased the percentage of rent decreased. The percentage of rent to income in Ahmedabad was 14.09 for all income-classes, the percentage varying from 5.97 in the income-group below Rs. 100 to 39.7 in the income-group below Rs. 15. The highest proportion of rent to income in Sholapur was 26.55 per cent in the case of the income group below Rs. 20.

By the Bombay Rent, Hotels and Lodging House Rates Control Act, 1947, the Government has controlled, among other things, rents, repairs to premises, the rates of hotels and lodging houses and the procedure for eviction of tenants. The Act protects the interests of the population, particularly in big industrial cities of the position of Bombay and Ahmedabad. It has, however, been extended to all areas where the shortage of housing tends to arbitrary increase in house rents.

The Rent Act prevents landlords from increasing rent beyond the level of the 'standard rent' which is assumed to be reasonable. The tenant is also protected against ejectment in an arbitrary manner. By the amendment of the Act in December 1950, facility is given for demolition of ground and first floor structures with the permission of the law court where the landlord undertakes to reconstruct at least three times the accommodation in place of the demolished premises. Evicted tenants are guaranteed equivalent accommodation in the reconstructed premises on favourable terms. There is also a time limit for completing reconstruction.

Ahmedabad

The Municipality has constructed 283 tenements for Harijans and 454 for others. The tenements contain a room (144 sq. ft.) one kitchen (64 sq. ft.) and an open verandah all in a single storey structure. The rent charged in 1944 was Rs. 2 p. m. for Harijans, and Rs. 7-8-0 for others. The Ahmedabad Mills Housing Company has provided 800 tenements for the workers, each tenement consisting of a room 14′ × 12′, a kitchen 12′ × 6′ and a verandah 7′ × 12′. The rent charged is Rs. 4-8-0 p. m. The Textile Labour Association has built a colony of 60 tenements, rented on a hire-purchase system, the workers paying Rs. 10 p. m. for twenty years. Each tenement consists of two rooms (14½′ × 10′) and 11′ × 18′), a kitchen (8′ × 7′), a verandah 19½′ × 10′) and a courtyard (19½′ × 18′).

Kanpur

According to the housing enquiry of mill-workers in Kanpur undertaken by the U. P. Bureau of Economic Intelligence, "the monthly income of 57 per cent families ranged between Rs. 10 and Rs. 25 and of another 29 per cent between Rs. 25 and Rs. 40 ; the maximum concentration of families occurring in the income-level of Rs. 15—25. Again, 86 per cent families paid rents below Rs. 3-8-0 per mensem ; while 62 per cent paid rents between Rs. 1-8-0 and Rs. 3-8-0. The proportion of families paying comparatively high rents was more in lower income-groups."

Calcutta

In Calcutta, in spite of the Calcutta Rent Act of 1920, the workers have to spend about 20 per cent of their income on house rent alone. In jute mill areas the workers spend about 5 per cent of their income on house rent, if they live in mill lines or about 10 per cent if they live in private *bustees*. The cotton textile workers have been provided with housing by the employers. While many mills do not charge any rent others charge from Rs. 1-8-0 to Rs. 2 per month.

The jute mills in and around Calcutta have provided housing, the percentage of workers housed by individual mills varying from 7.9 to 100.Rents of *pucca* rooms vary from annas three to Rs. 2 per month. In the case of a large proportion of tenements, the rent varies from annas 8 to annas 12 per month. A large number of workers, however, live in *bustees* where the conditions are very bad.

Madras

In Madras, the Buckingham and Carnatic Mills have provided tenements which consist of a living room, a kitchen, a working place, front verandah and a yard. A nominal rent of Rs. 1-8 is charged, though for larger accommodation, the rent varies from Rs. 3 to Rs. 5 per month. Most of the workers in Madras live in single rooms, 8′ × 5′ to 8′ square and their rents range from Rs. 3 to Rs. 10 per month.

Mention has already been made of the housing colonies built by the Madura Mills and Bangalore cotton, silk and woollen mills. At Madura the house rent is only Rs. 4 per month and the house becomes the workmen's property after a period of twelve years.

Jamshedpur

Mention has also been made of the housing provided by the Tatas at Jamshedpur. The company's quarters comprise several types. The charges vary between Rs. 1-8-0 and Rs. 5 per month for the quarters having a living room (with verandah and kitchen in some cases and Rs. 2-4-0 to Rs. 11 per month for quarters having verandah (front and/or rear), courtyard, etc.

Kolar

The gold mines at Kolar have provided a colony for their workers, which is neat and tidy. The rent charged for a single hut is annas 8 and for a double hut Re. 1 and Rs. 1-4-0 p. m.

Rent Control Acts passed by various States

Due to movement of rural population to cities in large numbers and the breaking out of World war II, the rents of houses in towns and cities began to rise steeply and the various State Governments had to devise necessary measures to keep the rents at a reasonable level. To meet this contingency Rent Control Acts were passed and Ordinances issued. Following are the Rent Control Acts passed by the various States in India:

1. The Bombay Rents, Hotels and Lodging Houses Rates Control Act, 1947 ;
2. The Coorg Rent Control Act
3. The Ajmer-Merwara—Delhi Rent Control Act.
4. Rajasthan Rent Control Act, 1951
5. West Bengal Pemises Rent Control (Temporary Provisions) Act 1950.
6. Orissa House Rent Control Act, 1950.

CHAPTER LXXVII

CONGRESS AND THE HOUSING FOR WORKERS

The Congress has played a great part in the evolution of an organised and dynamic labour organisation. In early stages the Congress welcomed the formation of the All India Trade Union Congress in 1920. Congressmen were closely associated with the development of the Trade Unions. Congress being a fighting organisation could not, however, maintain an even continuity of efforts in the field of labour as its leaders and workers had to court imprisonment from time to time in the struggle for freedom.

The Congress adopted a comprehensive labour programme in its Karachi Session in 1931 which included housing for labour. Its resolution demanded a living wage for industrial workers, lesser hours and healthy conditions of work, protection against the economic consequences of old age, sickness and unemployment, protection of women workers, restrictions on the employment of children and the freedom of association and of collective bargaining. This programme could not, however be brought to the stage of fruition as the Congress was declared an unlawful body. On the resumption of its normal activities, the Congress Working Committee passed a resolution in January 1934, advising Congress workers to engage in constructive activities such as the organisation of industrial labour.

With a view to giving wider application to the Gandhian principles in the field of labour, the Gandhi Sewa Sangh set up a Labour Sub-Committee in 1937. The Hindustan Mazdoor Sewak Sangh was started by this Sub-Committee in 1938 with the object of organising industrial workers all over the country on right lines for the purpose of establishing just industrial relations, eradicating exploitation and of applying the principles of truth and non-violence, as preached by Mahatma Gandhi, in industrial relations.

The Sangh was not in the nature of a Central labour organisation, its functions were limited to creating a body of trained labour workers of the right type imbued with the spirit of service. After training, these workers were sent out to undertake the work of labour organisation and welfare. This body was also charged with the responsibility of guiding the activities of Congressmen engaged in labour work. The scope of the Sangh was expanded later and membership pledge for strict adherence to the Gandhian principles was introduced.

Congress Ministries were installed in eight out of the eleven Provinces (now States) of India in 1937. The Congress election manifesto stressed the rights of labour to organise and to strive for the promotion of its interests. The hold of the Congress on industrial labour was demonstrated in a striking manner by the fact that the Congress won 90 per cent of the labour seats it had contested in 1936-37 election.

The Congress Ministries in the Provinces (States) evinced keen interest in the welfare of labour. In spite of several handicaps the Labour Committee appointed by the Congress Working Committee in 1937 consisting of Shri Jairamdas Daulatram, Shri M.R. Masani, Acharya Kriplani and Shri V. V. Giri, who was later replaced by Shri Jai Prakash Narain, covered much ground. This Committee convened a conference of Provincial Labour Ministers and Parliamentary Secretaries in October, 1937, and discussed the question of enforcing uniformity in labour legislations and the standard of labour welfare. The Conference formulated a programme which included revision of the Factories Act, stricter enforcement of the Labour Acts, an enquiry into the question of adequacy of wages, labour exchanges, housing indebtedness, employment insurance, etc. The programme also included devising plans for relief to landless labourers and plantation workers, promoting literacy, prohibition in industrial areas, etc. Some of the Provincial (State) Governments, notably those of Bombay, the U. P. and Bihar, constituted Labour Inquiry Committees.

Labour Committees

The reports of these committees, though not acted upon immediately, due to theresignation of the Congress Ministries, are valuable documents, being the precursers of the measures adopted later for the benefit of labour. The Government of Bombay passed the Industrial Disputes Act, 1937. Other legislative and administrative measures were taken by the Congress Provinces (States) for improving the lot of the workers.

Although the first Congress Ministries did not remain in office long enough to fulfil the splendid programme they had started, they certainly showed a way and laid the foundations of more positive and comprehensive action taken later.

In 1938, the National Planning Committee was appointed with the Hon'ble Shri Jawaharlal Nehru as its Chairman. The Committee began its work in 1939 anddivided itself into various Sub-Committees among which was the Sub-Committee on National Housing. This Sub-Committee examined all the aspects of the housing problem and gave a detailed report with concrete suggestions.

The Government of India's concern in regard to housing for industrial workers is also clear from their Resolution dated the 6th April, 1948, on Industrial Policy, a short extract from which is given below:

> "The Government of India are also taking special steps to improve industrial housing as quickly as possible. A scheme for the construction of one million workers' houses in ten years is under contemplation, and a Housing Board is being constituted for this purpose..........."

The welfare of the common man has been the objective of the Constitution of the Republic of India. Every citizen has his assurance of social and economic justice under its provisions, in addition to his rights of franchise and civil liberty. The interests of the mass of workers have determined the directive principles of State's policies in the Constitution as in Part IV. These include the protection of life and welfare of the workers, the recognition of their rights to work within the limits of the economy of the country, the provision of public assistance in case of unemployment, old age, sickness, disablement and other cases of under-served want, the guarantee of adequate means of livelihood, a living wage and conditions of work ensuring a decent standard of living and full enjoyment of leisure and social and cultural activities.

Distinguished Congress leaders such as the President, Hon'ble the Prime Minister, the Hon'ble Minister for Labour, from time to time, have given authoritative pronouncements in regard to housing of labour. Some of these pronouncements are quoted below:—

The President (Dr. Rajendra Prasad) in his inaugural address to the Parliament on the 5th February, 1952 dealing with Labour Welfare said:

"Progress had been made for the welfare of Labour. The Plantations Labour Act and the Minimum Wages Act are being implemented and action is being taken for legal protection against forced labour. A beginning has been made in the implementation of the Employees State Insurance Act. The Agricultural Labour Inquiry is nearing completion and action is being taken in some States for the fixation of minimum wages in agriculture. The Industrial Housing Scheme is being extended to Part B and C States...... ."

In February, 1952, Hon'ble the Prime Minister, visited some of the slum areas in Kanpur where industrial workers live. He was shocked to see the deplorable conditions of housing and expressed the view that a beginning must be made and the present structures should be replaced by temporary structures in more sanitary conditions.* This question is seriously engaging the attention of the Government of India.

Again, when opening the Atul Works, near Bulsar, in March, 1952, the Prime Minister, urging the industrialists to give more attention to housing labour, said:—

" Factories are built and officers are housed, but small labourers have no houses to stay. You should not say that the workers would somehow or other carry on and come for work. Workers are equally important as the officers......... In Sindri, it is not so good. In Kharagpur workers lived in old houses. In Chittranjan they were well-housed. In Kanpur I felt we should burn down all houses so that progress might be quicker. I just wonder how the industrialist, who finds money for several things, finds no money for housing the labour. It is a difficult problem, but if the Government and the industry co-operate much can be done."

Referring to the Government housing scheme, Shri Nehru said that despite financial stringency Rs. 40 crores had been spent on housing the refugees. " What is the use of building hospitals unless preventive measures are taken. If slums are cleared and the labour given better houses, production will increase, I wish all monies spent on hospitals are spent on slum clearance."

The Prime Minister further said that progress was judged by the way the common man lived. " Better health and sanitation facilities and a lesser rate of increase in population are the problems. If we prevent the loss of food grains by wild animals, we have solved our food problem."

Concluding, the Prime Minister appealed:
" We must understand the problems and work. We must realise that crores of people are engaged in building the new Bharat. We must realise what our part is and play it seriously."

The Hon'ble Shri Jagjivan Ram, former Labour Minister, in some of his speeches said:

" With the attainment of Independence, the duties and obligations of Congressmen have increased manifold. Let them not forget even for a moment that they have to work unceasingly for the ultimate objective—Swaraj—for which the Father of the Nation strived so hard and laid down his life. That real Swaraj lies in reinstalling the worker in the field and factory to his rightful place in society. Let us work for that and build the India of our dream."

" Exploitation not only in the economic sphere but also in the social and political spheres must end as they were relative and intertwined."

" Government of India were pledged to ensure a fair deal to Labour. It is the declared policy of the Government that the worker in free India would enjoy the fruits of his labour and a fair standard of living."

" Labour was not to be regarded as a commodity of commerce and that it was entitled to human conditions of employment."

" As a partner in industry, labour is entitled to the benefits accruing from partnership, but it must also learn to realise its responsibilities."

" Real independence lay in liquidating poverty and illiteracy, in assuring to the toiling millions of the country reasonable comforts, healthy living conditions and at least two square meals a day."

" Industrial undertakings which do not provide a decent standard of living for their workers have no social claim to survival."

" No Government can expect peace in society and no employer peace in industry if housing conditions continue to be as they are today."

Only as recently as 20th May, 1952 His Excellency the Governor of U. P. Shri Homy Modi in his address to the State Legislature said :

" .... The Government has also under consideration plans for clearing slums and providing houses for other workers on a large scale. It is intended to begin first with Kanpur."

The Hon'ble Shri V. V. Giri, Labour Minister, inaugurating the 19th session of the All India Organization of Industrial Employers on the 19th July, 1952, at New Delhi, brought home the need for industrial housing programme and development and said—

> " Industrial housing in my view is a problem which needs the highest priority and if various schemes formulated since 1946 have remained unimplemented, might I say frankly that part of the responsibility for this delay has to be borne by the employers ? If this were not the case, I feel we would have had more houses by now. I say this not with a view to any examination *post mortem* but more to emphasize how important it is that employers' organizations should give much greater importance to this question than they have done hitherto. In this connection, your assurance

> that employers are as anxious about the problem as the Government is a great relief to me and I trust this will mark the beginning of real practical progress. The Government as a whole is very much concerned at the present appalling housing conditions in the country and I can assure you that whichever Ministry deals with this question, Labour Ministry's and my own personal interest in it will continue undiminished. I do not propose at this stage to go into the details which you have referred to, except to note in passing that you do recognize that a housing scheme for industrial workers will need financial assistance from the employers as well as from the Government."

Welcoming the delegates to the International Conference of Social Work Organizing Committee, the Hon'ble Rajkumari Amrit Kaur laid emphasis on social services and said :—

> "We have embodied the principle of social justice in our Constitution and are anxious to realize this ideal with deference both to our genius and tradition as also to the advance made by the progressive Western nations. ....Legislation or ideologies alone are not enough. In order to make social justice all-embracing, the motive force must be love, and by love I mean the virtue that blossoms as a rose in the desert, that makes life possible for those whose existence might otherwise be dreary and that blesses the giver more than the receiver.............................. .... . If social work is to justify its survival as a profession or as I would prefer to name it a calling, it must strive towards providing every individual social security measures, adequate material necessities of food clothing and shelter, health services, opportunity for education and facilities for voluntary cultural association."

PART V

ACTION TAKEN BY INTERNATIONAL BODIES AND FOREIGN COUNTRIES

CHAPTER LXXVIII

HOUSING AND THE I. L. O.

The concern of the International Labour Organisation for the improvement of housing conditions has been shown on a number of occasions. As long ago as 1921, the Conference adopted a Recommendation concerning living conditions of agricultural workers. This Recommendation set certain simple minimum standards for all accommodations provided by employers for housing agricultural workers. In 1922, the I. L. O. directed its attention to housing problems. At that time the housing crisis was particularly serious in all countries and the working classes suffered severely from the shortage of dwellings. The International Labour Conference, therefore, at its Fourth Session, adopted the following resolution:—

" Having regard to the fact that the problem of housing is of particular importance, both to the employers and to the workers, as well as to the Governments of Member-States of the I.L.O., the Conference invites the Governing Body of the International Labour Office to examine the opportuneness of the Office pursuing the studies undertaken on this subject, having recourse, if necessary, to the collaboration of qualified experts."

In compliance with this resolution, the International Labour Office in 1924 published the first study, "European Housing Problems Since the War." A second study, " The Housing Problem in the United States," was published in 1925 to complete the series.

During the ensuing period there has been a progressive development of housing legislation. The transitional measures passed during the first few years of the post-war period, when Governments were compelled to introduce many innovations in order to cope with urgent fresh problems, were succeeded by more systematic provisions which covered a far wider field. Meanwhile, the International Labour Conference in 1924 expressly referred to it in the Recommendation concerning the proper use of workers' spare time:

" Whereas it is of advantage to the workers and to the whole community to encourage everything tending to the harmonious development of the workers' family life; and whereas the most effective means of protecting the workers from the aforesaid dangers is to place within their reach a proper home, the Conference recommends the increase in number, if necessary in co-operation with the national or local authorities concerned, of healthy dwellings at low rentals in garden cities or urban communities, under proper conditions of health and comfort."

Again, at its 1928 Session the Conference invited:

"The Governing Body to undertake an investigation of the question of industrial housing and the general living-in conditions of the workers with a view to placing it on the agenda of an early Session of the Conference."

The Governing Body decided to undertake fresh investigation of the housing problem. In 1932, a further resolution requested the Governing Body " to consider the possibility of placing the question of workers' housing as an item on the agenda of an early session of the Conference." As a result, the I. L. Office published a further survey of Housing Policy in Europe; Cheap Home Building, and submitted to the Governing Body at its 64th Session in October 1933, for consideration in fixing the agenda of the 1935 Session of the Conference, a statement of the law and practice regarding living-in conditions for workers.

Six years later at Havana, in 1939, the Second Labour Conference of the American Member-States requested the Governing Body " to consider the inclusion of the question of working class housing in the agenda of an early session of the International Labour Conference with a view to the adoption of a draft Convention or Recommendation upon the subject."

The concern of the I.L.O. with the improvement of housing conditions also found an expression in the Declaration of Philadelphia and in a Recommendation and a Resolution adopted by the 26th (1944) Session of the International Labour Conference. The Declaration listed the provision of adequate housing and facilities for recreation and culture among the objects to be achieved by programmes which it is the solemn obligation of the International Labour Organisation to further among the nations of the world. The Social Policy in Dependent Territories Recommendation (No. 71), 1944, included a statement that the authorities competent to make effective such standards " shall be responsible for ensuring the establishment of satisfactory housing conditions." The Resolution concerning social provisions in the peace settlement, also adopted by the 26th Session of the Conference, included the raising of standards of living to provide adequate housing among the matters which " are of international concern and should be among the social objectives of international as well as national policies."

The interest of the I. L. O. in housing and reconstruction problems has continued. The Director General's annual report, in its description of the economic background of the period covered, usually includes a general study of housing problems and of the solutions adopted. This study gives an idea of the needs of the various countries and of the economic and legislative measures taken with a view to meeting those needs.

Since 1944 the I. L. O. has published a number of studies on housing questions in Sweden and Great Britain (1944), the United States (1945), France (1947).

In 1945 the I. L. O. issued a brief preliminary survey of its studies of housing questions in a publication entitled " Housing Policy ". It undertook these studies before the United Nations examined housing problem. In conformity with the Governing Body's rules, the I. L. O. gave in its publication a concise statement on the law and practice, of the various countries. The statement intentionally did not touch upon any town and country planning problem; it dealt only with the following three technical problems arising in urban zones ;

(*a*) Housing Standards.—The scope of construction programmes following the second World war gives special importance to the study, comparison and development of housing standards (standards of occupancy and construction). The I. L. O. has summarised the data in this field in order to facilitate the laying down of certain general principles which might contribute to the establishment of national programmes.

(*b*) Organisation and financing of cheap housing.—The problem of the relation between the limited income of the working classes and the cost of standard housing had led the International Labour Organisation to propose the study of means of improving the output of the building industry.

(*c*) Relation between housing construction and the general level of employment.—In view of the volume of investments in the building industry, the International Labour Organisation considers that the economic activity and employment on the one hand, and the level of activity in the housing industry on the other are closely related.

In November 1946, the I. L. O. convened at Brussels an International Building, Civil Engineering and Public Works Committee on which 19 Nations were represented. The Committee set up special Commissions for various questions, including (*i*) general labour conditions and (*ii*) general problems of production and reconstruction. The last sub-commission examined the problems of (*a*) establishment of programme of work, (*b*) means of increasing production, (*c*) problem of reconstruction, both for individuals and committees (*d*) recruitment of workers and apprenticeship and (*e*) stabilization of employment.

In 1946 in a report " Proposed International Labour Obligations in respect of Non-self-Governing Territories, the I. L. O. submitted a draft proposal for a convention concerning the social policy, including measures for promoting improvement in housing in these territories.

In the spring of 1947 the Coal Mines Committee adopted a resolution on the necessity of developing a general policy relating to housing for coal miners.

In August 1947 the Permanent Agricultural Commission of the I. L. O. met at Geneva to study the various problems,several of which concerned the housing of agricultural workers.

The International Construction, Civil Engineering and Public Works Committee met again in the spring of 1948. Its agenda included the following questions:

(*a*) developments and general trends in the housing fields,
(*b*) instability of employment in the building industry,
(*c*) recruitment and apprenticeship, and
(*d*) relations between employers and workers.

The whole problem of reducing production costs in the building industry and of subsidies to the building industry with a view to providing cheaper housing, is being studied by the I. L. O. which is also concerned with the study of housing in its relation to employment and as an avenue of investment.

The I. L. O. published a report on " Housing and Employment " in 1948. The study deals with the problems of the achievement of greater stability of employment in the building industry, the reduction of costs and the payment of housing subsidies. These central problems of housing policy, the study indicates, are complementary and any aspect of housing policy can be carried out so as to contribute to the solution of all these problems. The study, therefore, emphasizes the need for a well-rounded housing policy to achieve its aims as economically as possible.

A study of miners' housing was also prepared by the Office for submission to the Third Session of the Coal Mines Committee of the I. L. O. which met in 1949.

The Preparatory Asian Regional Conference which met in

November 1947 at New Delhi adopted a Resolution concerning housing which requested the Governing Body " to instruct the International Labour Office to assist the Governments by undertaking, in consultation, where appropriate, with any other International organisations which may be concerned, a systematic, comprehensive and comparative study, in the light of international experience of the problems of housing of the urban and rural populations of Asian countries, particularly in regard to the provision of finance, materials, town planning, location of industries, fixation of land values, fixation of rents, subsidies, etc., and to refer these questions to succeeding Asian Regional Conferences."

The Regional meeting for the Near and Middle East adopted a resolution concerning the economic policies designed to further, in the Near and Middle East, the social objectives of the I. L. O. which made reference to housing problems; which laid down certain standards of policy in respect of housing and which invited the Governing Body to arrange for such action to facilitate the implementation of these policies as can appropriately be undertaken by the I. L. O., including the preparation of further studies on particular aspects of the problem, and to draw the attention of such International Organisations as may have primary responsibility for international action in respect of the various measures suggested including in particular the Economic and Social Council of the United Nations and any Economic Commission for the Middle East which may be established by it, the Food and Agriculture Organisation of the United Nations and the World Health Organisation, to the views expressed and to consult with them as to the further measures or studies relevant to the raising of the standards of living in the Near and Middle East which may be found appropriate.

The following are the policies in respect of housing mentioned in the resolution:

"12. In the interests of the health, welfare and efficiency of the population, appropriate housing standards to which new dwellings should, as far as practicable, comply should be adopted and enforced."

"13. Building programmes for dwellings should be drawn up covering a period of at least five years."

"14. In preparing such programmes, due regard must be had to the nature of the materials locally available and to the alternative uses of man-power and material."

"15. Schemes should be devised for the financing of such houses, with assistance of the public authorities in order that the cost of the dwellings to the user may be within the means of those for whom they are intended."

"16. In rural areas, the agricultural employer should be required to provide an approved standard for the wage-earners living on his estate."

The Governing Body authorised the Director General to initiate the necessary consultations with other International organisations to give effect to the above mentioned resolutions.

I. L. O.'s programme for 1948-49 in the field of Housing and Town and Country Planning included the following :—

I. Building, Civil Engineering and Public Works Industry Committee
  1. Situation of building industry in various countries.
  2. Instability of employment in the construction industry.
  3. Recruitment and training for the construction industry.
  4. Industrial relations as affecting collective bargaining in the construction industry.

II. Study on Housing and Employment
  1. Housing as avenue of investment.
  2. Reduction of costs.

III. Miners' housing (study for Coal Mines Committtee).

IV. Housing for agricultural workers (study for Permanent Agricultural Committee).

V. Housing problems in Asia (studies for I. L. O. Regional Conferences.)

VI. Housing problems in Near and Middle East (studies for I. L. O. Regional Conferences).

VII. Housing and Town and Country Planning in non-metropolitan territories, with special reference to migrant workers.

This question also engaged the attention of the Asian Regional Labour Conference of the I. L. O. held in Ceylon in January 1950. Below is given an extract of the Resolution concerning the promotion of facilities for Workers' Welfare in Asian countries :—

" (2) It should be a recognised object of public policy to ensure that adequate medical care and educational and recreationa facilities, housing and other accommodation are progressively made available for all workers having need thereof."

It is understood that the question of housing will be engaging the attention of the Third Session of the Asian Regional Conference to be held in Tokyo in September, 1953.

The question of how to combat the world's housing shortage again came in for discussion at the I.L.O. Committee on the Construction Industry attended by Government, worker and employer delegates from 19 countries held early in 1951 in Geneva.

The Committee was of the view that the solution of this world-wide problem should continue to be a major concern of every Government. It accordingly reported to the United Nations that immediate plans for the most effective use of raw materials and manpower should be drawn up and carried out with the fullest agreement among Governments, employers' and workers' organisations. The Construction Committee further realised the need for provision of urgent technical assistance to underdeveloped countries and called for increased aid to the same, in view of the precarious housing position in those areas.

CHAPTER LXXIX

HOUSING AND INTERNATIONAL ORGANISATIONS (OTHER THAN I.L.O.)

Between the two World wars the League of Nations and the International Labour Organisation, as well as non-governmental organisations such as the International Federation for Housing and Town Planning, carried out a number of valuable studies on the questions of housing shortage, housing policies, housing standards and slum clearance.

Post-war Reconstruction

The General Assembly Temporary Sub-Commission on the Economic Reconstruction of Devastated Areas, which met between July and September 1946, presented a survey of immediate housing needs in Europe. According to the Sub-Commission the common obstacles to speedy reconstruction were shortages of timber and coal, of skilled labour and, in some countries, of manufactured goods. The Sub-Commission associated itself with the report of the Special Meeting on Emergency Housing Problems held in Brussels in July 1946 under the auspices of the Emergency Economic Committee for Europe. This Meeting recommended that the Economic and Social Council of the United Nations should undertake or sponsor the establishment of a permanent international housing organisation.

At the first session of the General Assembly of the United Nations held in New York in December, 1946, it was proposed that a preparatory conference of housing experts should be convened and that an international information and research office on housing and town planning questions should be created.

Recommendations of the United Nations General Assembly

The General Assembly, in its resolution 53 (I) of 1 December, 1946, recognised the magnitude and gravity of housing problems in various parts of the world, and the advisability of providing for exchange of views between the technical experts of the various nations. It recommended to the Economic and Social Council that the appropriate commissions be instructed to expedite their study of housing problems with special reference to the organisation and unification of international exchanges of information relating, in particular, to town planning principles, building techniques and the climatic, economic and financial, legal and legislative aspects of housing and town planning questions. It also recommended that consideration be given to the desirability of holding an international conference of experts to advise on the need for establishing an international mechanism to collate such information, lay down guiding principles for new technical research on materials, methods of use and pre-fabrication and to define standards capable of general application.

Various Commissions interested in Housing

Under instructions of the Economic and ocial Council, the Commission at its first session in January-February 1947 took up the question of setting up international machinery for housing and town planning. The Economic and Employment Commisssion was also interested in housing problems. During the first session of the Social Commission, the question of convening a conference of experts was discussed. While it was felt tht no special international organisation to deal with housing problems should be created ; the collection and dissemination of information could best be carried out by the Secretariat of the United Nations under the Economic and Social Council.

The Population Commission, the Human Rights Commission and Commission on the Status of Women had already expressed their interest in housing questions. The International Labour Organisation, and the United Nations Educational, Scientific and Cultural Organisation declared their readiness to participate in the work of formulating a housing programme.

Social Commission's resolution

The Social Commission, therefore, in its resolution on housing, recommended to the Economic and Social Council the early setting up of a housing and town planning service within the Division of Social Activities of the Secretariat, to collect and disseminate, in particular by the publication of a review, all legislative, legal, economic, financial and technical information relating to housing and town planning ; to co-operate closely with the other departments of the Secretariat, the specialised agencies and the Emergency Economic Committee for Europe, as well as with those non-governmental organisations which had received consultative status with the United Nations, and to prepare the meeting of the international conference of experts mentioned in the General Assembly resolution or the holding of a smaller conference to be attended by representatives of war-devastated countries and countries in urgent need of better housing.

At its fourth session, in March, 1947, the Economic and Social Council in general approved the above proposals made by the Social Commission. The Council instructed the Secretariat to submit to the Social Commission a proposal regarding an international conference of experts on housing, including a statement of objectives, scope and composition, with a view to enable the Social Commission and the Economic and Employment Commission to submit recommendations to the Council.

Special fields of interest

Exchanges of views had led to the conclusion that, in view of the wide scope of housing questions and the great diversity of the problems arising in the various countries, the most fruitful approach to housing and town planning questions would be from two special angles; namely, types of questions or problems, and types of area. The Commission considered that the study of housing standards would constitute a type of problem falling within its special sphere of interest. Tropical areas, war-devastated areas, economically under-developed areas and rural areas were recognised as types of area for which studies could also be carried out usefully under the Social Commission. The Commission recommended organising small meetings of experts to study either special questions or the problems of special areas.

Functions of United Nations

At its sixth session, in February 1948, the Economic and Social Council approved and endorsed the recommendations of the Social Commission. The Council recognised that the function of the United Nations in regard to housing was to collect and disseminate information, and distinguish between short-range questions, such as the immediate need for houses in the war-devastated areas, and the long-range questions of housing in tropical and under-developed areas. The Council approved the convening in 1949 of two small meetings of experts on specific technical matters in the housing field. It requested the Secretariat to submit a report outlining the several activities of the specialised agencies, inter-governmental and non-governmental organisations and subsidiary organs of the Council in this field, and the measures taken thus far towards their co-ordination.

Advisory Committee on planning

An *ad hoc* Committee of the Social Commission—the Adisory Committee on Planning and Co-ordination—met shortly after the session of the Economic and Special Council to examine programmes of work in social questions with a view to determining overlapping fields of interest and activity and recommending to the Social Commission ways and means of co-ordinating the activities of the Secretariat and of the specialised agencies. The Advisory Committee approved the procedure instituted by the Secretariat, whereby a large measure of co-ordination had been secured at the working level by the periodical meetings of an informal group, composed of specialists concerned with housing problems in the various divisions of the Secretariat and the specialised agencies, and known as the Inter-departmental (Technical *ad hoc*) Committee on Housing and Town and Country Planning. This group has been recognised by the Secretary-General's Committee on Co-ordination as a regular subsidiary, to be known as the Technical Working Group on Housing and Town and Country Planning. The representatives of all United Nations organs and specialised agencies concerned with the various aspects of housing and town and country planning are *ex-officio* members of this group.

The interests of various United Nations organs

The Division of Social Activities of the United Nations Secretariat, working under the Social Commission, was requested to study minimum housing standards enforceable under penalty, problems relating to building materials and methods of construction and housing and town and country planning in tropical areas. It was also to collect and disseminate technical information, to issue a hand-book on the structure, aims and activities of housing and town and country planning organisations and a review on housing and town and country planning, and to publish technical bibliographical material and a summary of housing and town and country planning legislation. It prepared for meetings of experts on tropical housing which was held during 1949.

The Population Commission and the corresponding Division of the Secretariat were also interested in these matters. The Population Division aims to supply all interested organisations with the population figures required to permit a better evaluation of housing problems. The Human Rights Commission is indirectly concerned, in so far as the right to adequate housing appears in the convention on Human Rights drafted by this Commission.

The Commission on the Status of Women is directly concerned with housing standards and the improvement of all housing facilities and community services, which not only make the life of the housewife easier, but also improve the health of the family.

In the economic field the Statistical Office of the United Nations, under the Statistical Commission, collects and disseminates housing and related statistics and studies the standardization of statistical methods and the definition of terminologies used in housing statistics. The Statistical Office was concerned with housing censuses in general, and in particular with the housing censuses which were to be conducted in many countries in 1950.

The Economic and Employment Commission and its two sub-commissions on Economic Development and on Employment and Economic Stability are concerned with all those housing and town and country planning problems, the solutions of which are economic rather than social or technological.

Interests of the Regional Bodies

The urgent problem of reconstruction in the war-devastated areas of Europe is the primary responsibility of the Economic Commission for Europe. Its Housing Sub-Committee based its programmes of work on an inquiry covering the following three subjects:

(*a*) Housing needs and anticipated programmes in Europe during each of the years 1948—1955.
(*b*) Needs of building materials in Europe, in the light of probable housing production and repair requirements.
(*c*) Measures taken in various countries of Europe to economize scarce materials.

The Housing Sub-Committee, in May 1948, adopted an immediate work programme covering the construction of houses and the production of building materials and equipment, and set up an organisation to carry out this programme. It also studied the housing needs and housing programmes of each country in Europe, requirements of materials, equipment and labour, measures to allow the full utilisation of locally available materials and methods of increasing the production of houses through industrialisation. It also studied improvements in housing design, construction techniques and European building codes with a view to achieving speed and economy of production, as well as the whole field of standardisation, mass production and the general organisation of the building industry.

Only recently created, the Economic Commission for Asia and Far East is concerned with the housing problems of under-developed and over populated Asiatic countries. The Economic Commission for Latin America is concerned with housing problems in Latin America.

Although not directly involved in housing questions, the Scientific Conference on Conservation and Utilisation of Resources, which was held in 1949, examined related problems, since it was directly interested in the availability of fundamental building materials, such as timber, an increasing shortage of which was expected unless long-range policies of production and rational utilisation were adopted.

The Trusteeship Council is interested in housing and town and country planning in Trust Territories. The Council asked the Administering Auhorities of Trust Territories to present periodical information on the general housing situation, on legislation affecting housing and town planning, on existing services for promoting improvements in housing and on all housing or town planning projects planned or in progress.

Interests of the Specialised Agencies

The Food and Agriculture Organisation is concerned with the improvement of rural housing as part of the general development of agriculture. It is interested in the study of rural building materials and rural building methods. Housing standards for rural areas are being established by the FAO as a basis for social planning. The FAO is indirectly but actively interested in the improvement of building methods and the rational utilisation of building materials, in so far as the Forestry branch is concerned with the supply of timber. A separate Chapter has been devoted to I. L. O.'s interest in Housing.

The International Refugee Organisation is interested in housing since it has been proposed to supply all displaced persons to be repatriated to regions or areas suffering from shortage with pre-fabricated wooden houses which they will be allowed to take with them. (FAO is co-operating closely in this project.)

The United Nations Educational, Scientific and Cultural Organisation has wide interests in these questions. UNESCO approaches housing and town and country planning from two different angles. UNESCO is directly concerned with the improvement of the technical education of architects and planners, the unification of curricula and the development of technical schools, the production and distribution of technical films, the promotion of exhibitions and their exchange between countries, and the institution of awards for outstanding work in housing and town and country planning. UNESCO is interested in means of popularizing better housing and town planning, including the improvement of standards and in the creation of an International Information Centre for public education in housing, of a Federation of Civic Societies and of an International Institute of Home and Community Planning.

Recently the General Assembly at its 371st Plenary meeting on 2nd February, 1952, passed the following Resolution (No. 537 (VI)) :—

" The General Assembly considering that lack of adequate housing constitutes one of the most serious deficiencies in the standard of living of large sections of the population of the world ;

Considering that serious social problems originate in or are aggravated by the shortage of housing ;

Requests the Economic and Social Council, enlisting for the purpose the services of the appropriate subsidiary bodies, including where suitable regional bodies, and in collaboration with the competent specialised agencies and the non-governmental organisations concerned, to give urgent attention to practical measures to assist governments in increasing available housing facilities for people in the lowest income groups, including, *inter alia*:

(*a*) Intensification of activities to provide information to governments on techniques of production and building to increase the productivity of the building industry, to utilise local construction materials more economically and to reduce the cost of housing by lowering the cost of materials and equipment through standardisation and prefabrication;

(*b*) Advice to governments on the development of housing programmes and their relation to overall plans for economic development and to developments in particular areas, both urban and rural ;

(*c*) Grants within the framework of the technical assistance programme, and in accord with the specialised agencies and the services of the United Nations, of fellowships for study and training to experts from countries affected by the housing shortage, particularly countries where the building industry is still at the purely artisan stage ;

(*d*) Invitations to the governments of countries supplying building materials to give some priority to orders connected with the construction of economical housing for low-income groups ;

(*e*) Assistance to governments in developing practical methods of financing housing programmes from domestic or external sources."

The World Health Organisation is interested in all health aspects of housing and town and country planning, in housing standards, in methods of promoting hygienic living conditions in regard to housing, in community services and the planning of urban and rural communities. Through its expert advisers on tropical diseases, the World Health Organisation is particularly concerned with housing in tropical areas, especially in under-developed regions and in non-self-governing territories.

Other Organisations intrested

The activities and interests of the Pan American Union include the technical, sanitary, economic, social and statistical aspects of housing and town planning in its twentyone member Republics. An information service which collects data on housing needs, housing standards, design techniques and legislation and on the economic and production aspects of housing has been established. The information collected is published periodically in bulletins, information papers and reports.

Limited field work is undertaken and consultative assistance on specified scope is given to housing and planning agencies of the American Republics. The Pan American Union Co-ordinates research by all specialised agencies of the inter-American system by action as central clearing house. It organizes and conducts specialised inter-American conference on housing and town planning.

The American Federation of Labour is interested in housing and town planning from the point of view of workers. It is also interested in minimum housing standards and in long-term needs for better housing.

The activities and interests of the International Federation for Housing and Town Planning include all forms of studies and inquiries, encouraging the formation of national and local associations, the promotion of interchanges of opinion between organisations and experts, the collection and dissemination of information, the publication of reports and news sheets, the establishment of an international library, the promotion of exhibitions and the organisation of periodical international congresses.

There are thus many International organisations working in the broad and complex fields of housing and town and country planning. It is therefore natural that various organisations should be concerned with the same or similar aspects of these problems; but the activities and interests of several bodies in the same field do not necessarily indicate a duplication of effort, since the same subject is often approached from different standpoints, or with purposes that differ according to the objectives of the bodies concerned. But it is recognized that joint planning and the most complete exchange of information between the organisations concerned are necessary steps towards a practical and co-ordinated approach to these questions.

CHAPTER LXXX

HOUSING LEGISLATION AND PROGRESS OF HOUSING IN FOREIGN COUNTRIES

The problem of acute housing shortage has become almost universal and the Governments of many countries are trying to devise ways and means of giving aid to families who build or improve their own homes by their own labour. Only in relatively recent times, and, as a general rule, only in the more prosperous communities, have great numbers of houses been built otherwise than by the occupants themselves. Even now, the "self-help" method prevails over a very large part of the world.

After the second World war nearly all Governments found themselves faced with a greatly aggravated housing problem. Many of them are not in a position to launch housing programmes which involve large financial outlays. The house building industry is often so undeveloped that it cannot cope with the pressing demand on any large scale.

The governmental agencies faced with this grave dilemma are learning that the great traditional resource for home improvement lies in the interest, aspiration and labour of the occupant families themselves. They are also becoming aware of the fact that, with a relatively small outlay of public funds, it is possible to come to the support of the tradition of self-help by giving certain assistance on crucial matters which the families in question cannot handle unaided. A government can provide an over-all analysis of the problem and can formulate a continuing programme.

A brief description of housing legislation and progress of housing in some important countries is attempted below:—

Belgium

In Belgium, the Act of 1889 was the first real housing law, the purpose of which was to promote home-ownership among the workers. It had three main sections: one to further housing surveys, education, etc., second to provide cheap funds by authorising the General Savings Bank, an official institution, to loan to various types of building societies and third, a curious feature whereby the building societies could insure its payments by taking out an endowment life policy. through the General Savings Bank, on the life of the house-purchaser, Under the Act of August, 1920, the Government introduced a system of prolonged leases and controlled rents.

Under the Act of 1923, subsequently prolonged by the Acts of December 1924 and 1925, the lease of all dwellings continued to be automatically extended, but the maximum legal rent was first increased to 100 per cent and later to 125 per cent above the pre-war rate. Earlier, by the Act of October 1919, National Society for Houses and Dwellings was established to co-ordinate the work of public authorities and private enterprise. After the creation of the National Society, a system of subsidies to promote building enterprise was introduced in 1922. The National Society also encourages the creation of .local societies which carry out the building schemes, and exercises a certain measure of control over their management. There are four kinds of societies: (*a*) local or regional cheap housing societies, (*b*) co-operative tenants societies; (*c*) industrial societies and (*d*) special societies. Side by side with these building organisations, the National Society may also approve "credit societies" with the sole object of issuing loans to building organisations or private persons, who may propose to erect cheap dwellings.

Canada

Housing is the greatest national problem of Canada today. The present crisis, partly the aftermath of the war, had its beginning twenty five years ago. With the economic break-down and depression the housing industry had practically gone out of existence. The time-lag in switching over to peace-time methods together with the unprecedented demand for materials had caused serious shortage. Only recently the supply of materials met the demand and the house building industry has made a remarkable recovery. Under Part II of the Canadian Housing Act, 1938, house building undertaken by approved local housing authorities on the basis of loans extended by the Federal Government must satisfy a number of complicated conditions regarding rental. The provincial or municipal governments concerned also undertake to grant subsidies to reduce rents. The Act provided for tax reductions of 100 per cent, 50 per cent and 25 per cent over a three year period for new houses costing less than £4,000. Under the Canadian National Housing Act, 1944, the Dominion Government may join with approved institutions in making loans to assist in the construction of houses for owner-occupiers.

The Canadian Advisory Committee on Reconstruction computed post-war building needs on the basis of determining accumulated and annual requirements for 1946. The accumulated building need comprises current shortages which have arisen because of lowered war-time building activity, abnormal population growth of major industrial centres and building requirements to abolish over-crowding and replacement of substandard and slum dwellings.

The total accumulated building need in the arbitrary base year 1948, was estimated at 500,000 dwellings for all Canadian urba centres, which compares with the actual total of 1,437,000 urban units in 1941. Obviously, a programme to replace substandard and slum dwellings, to abolish overcrowding and to make up war-time deficits on such a scale would have to be spread over a number of years. The Committee recognised the likelihood of difficulties arising in connection with organising public housing projects, which would necessarily be an important factor in a large scale housing programme. Therefore, the liquidation in twenty years of an accumulated building need of 320,000 units was recommended. This immediate programme includes full replacement of all substandard and slum dwellings, but would not wholly abolish overcrowding or provide a desirable vacancy rate. Annual building need would be met by provision of 37,000 units annually, which would take care of all population growth but would cover only one half the requirements for replacement of houses becoming obsolete in the future.

The post-war housing programme proposed by the Advisory Committee provided for clearing up the worst features of housing-shortages and obsolesence, but was not offered as an ideal solution of Canadian housing problems. The suggested ten-year minimum programme, which was expected to be expanded in the second post-war decade, called for annual construction ranging from 45,000 to 100,000 units, timed according to expected business fluctuations.

England

In England housing legislation was first taken up in 1925 and various Acts passed thereafter were consolidated by the Housing Act of 1936. Under the Housing Act, 1930, local authorities were obliged to provide housing for families displaced from slum areas marked for demolition. The plans to construct new working class houses or to re-condition old ones, must be passed by the Minister of Health as being reasonably adequate. The joint Planning Commission formed under the Act undertook comprehensive proposals for zoning and for arterial roads. The main features of the British Housing Legislation are as follows. The landlords are required to keep the house reasonably fit for human habitation. The local authority is empowered to make and enforce bye-laws which may provide :—

(*a*) for fixing the number of persons who can occupy a house,
(*b*) for enforcing drainage and encouraging ventilation and general cleanliness of the house,
(*c*) for protecting the house from fire,
(*d*) for repairing and lighting staircases and cleansing courtyards,
(*e*) for safe-guarding against infectious diseases, etc.

The local authority may order demolition or prohibition of the house under certain circumstances. Erection of back to back houses is also prohibited. The houses if rendered unfit for habitation due to narrowness of streets, etc., are declared to be clearance area. Similarly, an urban area which requires to be re-developed as a whole for providing housing accommodation for the working classes is declared to be a proposed re-development area. The local authority may similarly, declare an area to be improvement area. It may serve notices on the owners for execution of works on, and for demolition of houses unfit for human habitation.

The permitted number of persons varies in relation to the floor area of a room *i.e.* ½ between 50 and 70 sq. ft., 1 between 70 and 90 sq. ft., 1½ between 90 and 110 sq. ft. and 2 in a room of 110 sq. ft. or more.

The management, regulation and control of houses provided by a local authority is exercised by the authority. Rents are fixed after due consideration of what is ordinarily paid by the tenants—grant of rebates are also permissible. The local authority may give loan to the owner of a house for reconstruction, enlargement or improvement thereof. It may promote the formation or extension of or assist a housing association desirous of erecting houses for the working classes by (*i*) making grants or loans to the association, or (*ii*) subscribing for share or loan capital of the association, or (*iii*) guaranteeing the payment of the principal of, and interest on, any money borrowed by the association.

Government will contribute towards expenses incurred by the local authority for providing houses for working classes every year for 40 years at the rate of £2-10*s* per displaced worker in an agricultural parish and at the rate of £2-5*s*. per displaced person in other parishes.

Town and Country Planning Acts

In addition to the Housing Acts passed in England, which were mostly concerned with providing accommodation to the working classes, mention may be made of the Town and Country Planning Acts. In 1925 the town-planning was disassociated from housing and the comprehensive Town and Country Planning Act of 1925 authorised the making of town planning schemes in respect of any land in course of development or likely to be used for building purposes for securing proper sanitary conditions, amenities and conveniences.

The central object of a planning scheme, as enunciated by the Town and Country Planning Acts of 1932, 1943 and 1944 is to ensure that the development of land shall proceed in an orderly manner, that it shall not take place in advance of the provision of necessary services, that the buildings shall not be unduly crowded together and that proper provision shall be made for open spaces and playing fields, etc.

Under the Town and Country Planning Act, 1932, the local authority may prepare a scheme duly approved by the Minister with respect to any land within its jurisdiction or may adopt, with modifications, if necessary, a scheme proposed by all or any of the owners of such land. The Minister may issue a general order for the development of the land.

The extensive damage caused by bombardment during the second World war necessitated wider powers to the Minister and the local authority for acquisition and development of land for purposes of planning. The Town and Country Planning Act, 1944, authorised the Minister to declare any land in an area of extensive damage as land subject to compulsory purchase if he was satisfied that such land should be laid out afresh and redeveloped as a whole for re-location of population or industry or for replacement of open space. In the event of such declaration the local planning authority will have the power to purchase compulsorily any land required for the purposes of redevelopment of an area of extensive war damage. The local authority may, with the approval of the Minister, authorise a local highway authority to purchase compulsorily any land required for the construction or improvement of the road.

The Minister shall compile lists of buildings of special architectural or historic interest; and the local authority shall have to prohibit the demolition, extension or alteration of such buildings. The reasons for choosing local authorities as the main instrument to carry through the housing programme are that local authorities are considered to be in a better position than private enterprise to build houses and to let to tenants who could not afford to buy, local authorities are able to select tenants according to need and that local authorities are a more "planable" instrument than private enterprise. Private house-building can be carried on only under licence from the local authority.

In Great Britain legislation has been enacted to provide for the erection of temporary houses having a life of about ten years. About half a million of these were to be built as soon as possible after the European war ended, in order to provide shelter for families whose houses had been destroyed by air raids. The choice of the materials of which they were to be built—including steel plate, steel frames with external walls of asbestos, cement or prefabricated units of wood covered with asbestos sheeting, and concrete on wooden slabs—was determined by such factors as the existence in the steel-plate industry of the large fabricating capacity needed for speedy production and by a desire to divert to the building of temporary houses as little as possible of the labour and materials required for the construction of permanent accommodation. The Government's policy 'is to mobilise another form of industrial capacity; in other words, to make use of factory labour to relieve the strain on building labour.' By these means the maximum amount of building labour is released to build permanent houses. This construction is of particular importance in view of the magnitude of estimated post-war housing needs.

Apart from war damage, a large number of existing houses were obsolete by modern standards and since the outbreak of the war normal construction of buildings had been practically stopped. According to an estimate made by the Minister of Health in December 1943 the number of dwellings which would be needed in England and Wales during the first 10 to 12 years after the war to replace slum dwellings and dwellings in a poor condition or grossly deficient in modern amenities was from 1½ to 2½ million; while an additional 1½ million dwellings were required to give each family a separate dwelling and so eliminate overcrowding. Compared with these figures the number of houses destroyed or damaged beyond repair by enemy action was, at that time, "not material"; but it became much greater for Scotland, the number of new houses required in December 1943 to replace unfit houses (other than those destryoed by bombing) and to end overcrowding was about 400,000.

The housing policies of the Labour and Conservative parties are different. Labour policy was essentially to carry on as before. The Labour Government pursued two main aims: to keep rents down, and to provide new houses primarily for renting and allocated between areas and individuals according to some calculation of relative needs. Private rents remained pegged at 1939 values; the contrast between them and the economic rents of new Council houses was so great that huge subsidies were applied to the latter in increasingly vain attempt to keep them cheap to tenants. The local authority was the main instrument of Labour housing policy. It had its area quota of repair work and determined its allocation among individuals by licensing all work worth £100 or more. It had its quota of new house building, and was required to permit only a tiny share to private interests. Private houses could be built only for customers, not speculatively in anticipation of demand, and the local authority imposed limits of size, cost, selling price and rent. It could itself provide dwellings of all kinds, being no longer confined to meeting the needs of the "working classes." For its dwellings it drew subsidies from the Exchequer, supplementing them with money from the rates. Dominating the whole field of local housing, it largely decided the order in which families were allowed to occupy new houses.

The claim that many more houses can and should be built, unsupported by any discussion of general investment policy, rests presumably on the plausible belief that a substantially higher yield could be got from the resources at present devoted to housing. It also rests on the claim (which the Labour Party rejected as premature) that a return to private importing of softwood would supply more timber for no greater outlay of dollars.

These objectives have been emphasised, though differently, by the Conservative Housing Sub-Committee in England. They regard that the plan will have to consist of three phases, the emergency phase of repairing the damage done during the war and catching up repairs, the intermediate phase of bringing the quality of housing to the minimum standard necessary and the final phase of replacing houses which are obsolete or obsolescent.

Thus, as regards England, it has been estimated that while a million houses will be required to complete the first phase, in the second and the third phases, perhaps in view of the changing definition of a slum, which is technically a dwelling unfit for human habitation, nearly 4 million houses will be required to replace about one-third of the houses in the country which could be labelled as slums. But because of shortages, the actual target was not fixed till January 1947. In view of the completion of nearly 60,000 permanent and 80,000 temporary houses in 1946, the Labour Government announced its target of 240,000 permanent houses in 1947.

In Scotland housing is a function of the Secretary of State, whose housing and town and country planning responsibilities are exercised through the Department of Health for Scotland. A special statutory body, the Scottish Special Housing Association, has been established to assist local authorities in their ordinary housing programme. The Association is a limited company with no share capital, financed entirely from government funds, and works under the general direction of the Secretary of State. Subsidies are provided in Scotland under the Housing (Financial Provisions) (Scotland) Act, of June 1946. The amounts are in general higher than in England, mainly on account of different rating system in Scotland.

Finland

In countries devastated by the war the earlier standard of housing has to be lowered and what is practicable is not the same as what is desirable. In twenties and thirties the standard of dwellings in Finland had considerably risen both with regard to space and equipment.

During the war the apartments had to be divided between several thousands. In Lapland houses and wooden tenement—houses have been erected. In the other cities wooden houses have been erected with the help of State subventions. In the countryside new dwellings with the help of State subventions have been erected for the homeless. Many houses had to be built for workers in order to develop industries. Emergency dwellings in the form of paste board huts and military barracks were first made. Such dwellings became permanent for the lower strata of the society irrespective of the conveniences.

Dwellings, subsidized by the State, were curtailed and simplified. This was necessitated by war-time conditions. The construction and fitting up of dwelling houses has largely been influenced by lack of building material, *e.g.*, stone houses could not be built due to lack of concrete-steel. Smaller houses were necessitated by lack of central heating.

Finland being an agricultural country, has a comparatively small town population and industry. There have been no architects and engineers in the countryside. While reconstructing, the State created an organisation to provide type drawings and building-advice free of charge to all those rebuilding houses. But the Governmental aid was limited to small dwelling houses, stables and other buildings necessary for agriculture.

A large part of mortgage credit is provided by saving banks, insurance companies and commercial banks. Besides these, there are private institutions which specialise in mortgage credit. In 1927, to provide mortgage credit, the State founded a semi-public institution based on co-operative principles known as the Housing Mortgage Bank. The funds of this Bank are made up of amounts raised by debentures and a guarantee fund provided by the State. It advances first mortgage loans in urban areas up to 45 to 55 per cent of the value. Second mortgages are mainly provided by insurance companies, commercial banks, and in the case of public utility buildings, by the municipal authorities. The work has been taken up by the Mortgage Bank.

In recent years, the interest rate on the first mortgage was 4.75 per cent per annum. Redeemable loans of the Housing Mortgage Bank, however, carried an annual charge of 6.2 per cent of which 4.86 per cent represented interest and 1.34 per cent redemption.

In 1942 an Institute of Standardisation was started to bring about uniformity and deliberate planning in building. It is co-operating with other professional groups of engineers, architects, constructors etc., and with the governmental institutions. The Institute publishes the results of its activity in the form of information cards for building. Propaganda forms an important instrument for the achievement of its objects.

France

Housing Legislation in France dates back to the Siegfried Act of 1894 which was amended and supplemented several times, especially by the Acts of August 1908 and December 1912. All these legislations being complicated, they were codified by the Act of 1922, which may be considered as the basis of first post-war housing policy up to the passing of the Loucheur Act of July, 1928. The 1922 Act specified four classes of organisations, *viz.*, (*a*) the public offices for cheap housing, (*b*) the co-operative societies for cheap housing (*c*) the joint stock cheap housing societies and (*d*) the building credit societies. After World war I, building societies undertook construction of private houses in France, the workers' dwellings being constructed by the cheap housing organisation with State financial assistance. Various agencies supplied mortgage credits with the amounts advanced by them. The Credit Foncier, which was a private limited company under the control of the State, raised funds by issuing bearer bonds carrying interest and repayable within a fairly long period. The bonds are considered first class investment. It was allowed to make first mortgage loans redeemable within a period of 10 to 75 years, up to 50 per cent of market value. Linked to the Foncier was the Building Contractors' Branch Bank which discounted up to three years merchants' and contractors' bills, within fixed limits, at a rate of interest which was 0.4 per cent higher than the Credit Foncier charged on its loans. The Act of 1928 provided more liberal financial support from the State and gave a large measure of encouragement to the ownership of houses. Finally the Act empowered local, municipal and departmental authorities to supplement the aid given by the State by contributing to interest and redemption payments on State and local loans up to 1½ per cent. The Act also sought to place at the disposal of the State the funds required for the vast building programme which was to be executed by the Government within five years. Under the Act the amount of subsidies was proportioned to the size of the family or the percentage of invalidity of the person concerned and not to the building cost of dwellings. Up to the passing of the Act of 1928, State support was chiefly given through two classes of organisations: public offices for cheap housing and building credit societies. The Government of France also offered interest bearing loans on borrowed capital under the Decree laws of 1927 and 1937 for a period of fifteen years.

As regards cheap housing, since 1928 the State shared in the interest charges on loans given to cheap housing organisations. Provision for subsidies was made under the laws of 1919 and 1922 amounting to one third of costs to facilitate the purchase of houses.

Recent Development (since World War II)

The damage or destruction of over 2 million dwellings during World war II resulted in acute housing shortage. Government estimate of housing needs was 240,000 new units per year for the next 20 years or more, but initial efforts were concentrated on repairing almost a million war damaged dwellings in the first 5 post-war years.

By 1948 only 56,300 permanent housing units had been built or substantially rebuilt. The slow construction rate was largely due to the freeze of rentals at levels so low as to yield little or no return on capital invested in housing. Accordingly a law of September, 1948, provided for the revaluation of rentals and for semi-annual increases for 5 years, until the January, 1949, rent should be trebled. To compensate for the higher rentals a system of housing allowances for low-income families was set up; workers received these allowances regardless whether they rented their dwelling or were paying off a mortgage. The rent increase, together with tax and other concessions in the law, greatly stimulated house construction in 1949. In that year, 51,436 permanent units were built and 1,59,725 in 1950.

Low-Cost and Workers' Housing

In addition, the Government has assisted the "Modern Rental Housing Organisations" (Organismes HLM). Some of these organisations are public offices under local administration and receive 65 year 2 per cent Government loans to build low-cost housing. Others are private companies or agencies formed jointly by industrial establishments and are eligible for subsidies, reduction of interest, tax exemptions and Government loans similar to those granted to the public offices. HLM mortgage loans to workers are guaranteed by the Government, and entitle the HLM agency to loans from the Family Allowance Fund of the social security system. They not only rent housing to workers, but can also sell the dwellings on rental-purchase contracts.

Many French industrial establishments also have assisted their workers in trying to solve their housing problems through :

(1) Building dwellings and allocating them among the company's workers on the basis of family status and seniority.
(2) Granting subsidies to HLM building organisation to build houses and rent them to the workers.
(3) Lending funds to the worker to build his own dwelling, sometimes subsidising part of the cost.

Certain groups of workers have received special housing assistance: Recognizing that the shortage of dwellings greatly reduced labour mobility, the Government in 1945 passed a measure providing housing for employees of the nationalised railways and later found it necessary to build houses to attract workers to the nationalised coal mines. An example of housing projects for specific groups in private industry is the "Inter-Professional Housing Committee" established in the northern France in 1948 to build housing for metallurgical and textile workers. Labour management and builders are represented on this Committee, funds being furnished partly by Government loans and partly by employer's contribution of 2 per cent of pay rolls.

Greece

During the period July 1948—June 1949 a total of 200,787 million drachmas was spent by the Greek Government on housing through the allocation of the Economic Co-operation Administration. Several types of housing programmes were undertaken during the year, and among them the Greek Material-in-Aid Programme, under which all people whose houses, whether urban or rural, have been destroyed or badly damaged, can obtain, regardless of financial condition, the amount of lumber, roofing, glass and other materials needed to produce a minimum dwelling. The programme is serviced by warehouses distributed throughout Greece. The value of the materials granted under this programme amounted to 18,481,000 drachmas in 1948-49. By the end of 1949 about 30,000 families had received building materials.

A further programme of aided self-help has been the development of small houses, built of local materials to the greatest possible extent, which the occupants can later expand into full sized houses. By the end of 1949, nearly 8,500 of these new minimum houses had been built.

In 1924 the City Council decided to collaborate in the construction of low-cost houses. The first scheme, begun in 1927, comprised 200 houses, with one room and a kitchen on the ground floor and an attic planned so that it could be changed into one room and a hall or two rooms. The financial aid (on loan) of the city amounted to 90 per cent of the cost of the building materials and the prospective owners contributed the remaining 10 per cent in the form of personal labour.

The collaboration of the city in this programme is partly administrative and partly technical and financial. An office was set up to purchase and make available all necessary building materials on the site, arrange with contractors for such work as the builder is not permitted to do (laying, gas, water, and electricity lines), maintain constructors to supervise the work, and handle the book-keeping and financial details of the buildings.

The success of the programme rests on the standardisation of prefabricated materials which are such that unskilled people can work with them. The walls are supplied in complete sections, with door and window frames inserted. All other woodwork is delivered out and ready for fitting. The inside staircases, cupboards and wardrobes have only to be set up in their places. The reinforced steel arrives on the site, and bent in suitable length. The usual fittings are prefabricated. The heating equipment can be installed by the builder. The plot of land for the house is leased from the city authorities for a term of sixty years and provision is made for renewal of the lease.

The houses are entirely modern, equipped with gas, water, electricity, central heating and a bathroom combined with laundry in the basement. By 1946 building had been restricted to two main types. One is a bungalow with three rooms and a kitchen, costing 18,000–19,000 krones and the other type a two-storey house with four rooms and a kitchen ; costing 20,000–21,000 krones.

Sweden

In Sweden the housing problem was engaging the attention of the authorities even before the 1st World war. In 1907, an Act was passed to promote the establishment of small holdings on a basis of family ownership. In 1912 a commission was appointed to go into the ways and means by which the State might assist in improving the housing conditions of persons of small means. Between 1917 and 1919 when building costs rose rapidly, the State granted non-repayable subsidies. After the war the State adopted the policy of producing more houses to cover the deficit caused by war and inflation. During 1920 and 1921 the State reduced its subsidies and granted credits on favourable terms. In 1924 the City Council of Stockholm decided to collaborate in the construction of low-cost houses. The first scheme comprised 200 houses, with one room and a kitchen on the ground floor and an attic.

In 1929 the State constituted 'Swedish Housing Loan Fund' consisting of local associations established by individual borrowers. The management of the Fund was in the hands of three associations which were jointly responsible for the obligations incurred by the Fund towards its creditors. The Fund borrowed the necessary capital by the issue of debentures. The State contributed a grant of 30 million krones towards the capital and reserved the right to appoint certain members of the executive. The Central Government also provided loans on favourable terms and direct subsidies to enable rent deductions to be made in favour of large and needy families.

Housing development in Sweden during the inter-war period was different from the same in belligerent countries. Housing shortage in the twenties necessitated financial contributions from State and community. These contributions were, however, soon abolsihed. The deflationary trend from the year 1920 to 1923 reduced the cost of building materials and rents also rose at that time. Private enterprise was, therefore, encouraged and consequently the shortage was removed. The housing authorities were faced with over-crowding due to lack of space in family dwellings.

To fight out depression and unemployment in 1933 the Swedish authorities carried out a programme of house-building and house-improvement, as a part of public works policy. The measures, financed by the State, were to rebuild and re-equip country dwellings and to remove over-crowding in the case of larger families. The former were adopted by direct contributions combined with loans in liberal terms. Consequently the standard of housing in the countryside has risen to the level of that in the cities. The overcrowding in large families was removed by granting loans for building houses with no profits to the builder and by annual contributions varying with the number of children. The loans are made to communes or public utility societies at rates equal to the cost of Central Government borrowing. Standard rents for houses built with the proceeds of these loans are based on cost, and abatements of 30 per cent to 70 per cent are granted to families with three to eight or more children. The Central Government then makes direct contributions equal to the amount of effective rent reduction.

In order to improve the housing conditions for pensioners, small apartments had been built in the thirties. The second World war has created in several countries gigantic housing problems particularly of covering a deficit caused by several years of non-production together with a much higher demand. In Sweden housing conditions had been comparatively favourable during the war but the post-war reactions have resulted in acute housing shortage in the cities.

In the beginning high rate of interest and later rise in the building costs caused a stagnation on the building market. The State aid in the form of credits on stabilized interest and later in the form of direct subventions made it possible to build houses on the same rents as before the war in spite of increased building costs. In spite of greater building activity, housing shortage has actually increased due to greater immigration into cities and towns. All building activity had to be regulated because of the shortage of building materials and consideration of the conditions of the labour market. The problem in the countryside is to improve the existing dwellings rather than to increase their numbers.

By 1946 building construction under the housing programme had been restricted to two main types. One was a bungalow with three rooms and kitchen. At 1946 prices, the value was estimated at 18,000—19,000 krones, of which 90 per cent represented the loan from the city, while the owners' labour covered the remainder. The annual outlay, including all expenditure except fuel, amounted to 1,100 krones. This compared with an average rent of 1,200—1,300 krones for a flat of one room and kitchen in new tenement houses in Stockholm.. The other type was a two storey house with four rooms and a kitchen, the building costs were 20,000—21,000 krones and the annual expenses approximately 1,200 krones.

Soviet Russia

The Government of the U.S.S.R. has since its inception faced continuing housing crisis. The provision of adequate housing has been complicated by the problems of rapid industrialisation and urbanisation, large population growth and accelerated development of remote new areas, in conjunction with severe shortages of building materials and man-power and the ravages of a war fought on home soil. Several techniques have consequently been utilised for adding to and improving of housing supply, including that of aided self-help.

With the outbreak of the World war I, the housing position in Russia began to deteriorate and a serious housing shortage was felt in 1915. Construction of new buildings came to a stop and with the growth of munition industries and the influx of refugees, the housing situation in towns worsened all the more. The Government adopted certain administrative measures such as nationalisation of property, abolition of private enterprise and regulation of economic conditions. The housing problem was radically altered both in character and volume. House property and land were municipalised and local authorities were vested with the control of houses and wielded full powers in respect of installation and eviction of tenants. No rent was charged. Payments for community services, *e.g.*, water, gas, electricity, tramways, etc., were abolished and the municipal authorities deprived of such sources of income, were not in a position to undertake new building projects. In Moscow, there were, in the beginning of 1924, 40,000 totally uninhabitable dwellings, or about 20 per cent of the dwellings available in 1917, just before the Bolshevist Revolution.

Owing to the precarious housing position Government eventually decided to modify, in August 1921, its ultra-communist policy and restore within certain limits, private initiative and rent system. Tenants' co-operative building societies and private persons were permitted to construct houses the ownership of which was guaranteed for a certain number of years. Houses with more than five dwellings were demunicipalised and returned to their former owners or leased. With a view to provide for repair and maintenance of houses, rent, varying with the status of the tenant, was re-introduced. The best houses were assigned to various government departments and the most important industrial undertakings. The organisation and working of worker's housing co-operatives were improved and strengthened. The Government was authorised to assist the co-operatives financially through levying progressive monthly tax on

" non-proletariat element " (traders and employers) and a supplementary income tax on persons whose half-yearly income exceeded a certain monetary limit. Certain percentage of tax levied on profits of State industrial undertakings as well as of municipal income derived from lease of premises to commercial and industrial undertakings was to be spent on construction of houses for workers. Further, a Central Municipal and Building Bank with an initial capital of 40 million roubles was to be set up for financing building programmes of housing co-operative societies and local authorities.

The measures enumerated above, however, failed to improve the housing situation in face of grave financial, economic and technical obstacles. Both the Central Bank and workers' housing co-operatives were handicapped in their construction activities on account of smallness of available resources. The over-all shortage of bricks, timber, window glass, and drain pipes, the high prices of building materials, costliness of labour, municipality or authorities involved in housing projects and bottlenecks arising therefrom, onerous conditions attached to the grant of subsidies and scanty attention paid to housing problems by trade unions hampered the work of housing co-operatives and militated against their success.

The Russian working class lived in 1925 in poor housing conditions. Habitable space was lamentably inadequate. Since rent was fixed in proportion to income of tenants, housing co-operatives, private persons and even municipal authorities preferred to let their houses to traders in order to make larger profits. The State railways provided accommodation for only 27 per cent of their staff and the majority of railway workers was compelled to live in villages far from the place of work. The country suffered from acute shortage and overcrowding.

Recent Developments

Every stone is being unturned in Soviet State to improve the housing conditions of the working people. Restoration and development of the municipal economy in the USSR has been proceeding at an ever-growing pace since the end of the World war. II The immense damage to housing during the second World war and the seriousness of the housing shortage led to enactment of several measures concerning individual housing. Thus on 29th May 1944, a Decree was passed which provided for the following among other things: the grant of seven-year loans to individual builders; up to 1,000 roubles; the allocation of timber and building materials obtained from the dismantling of destroyed buildings at "favourable" price; the exemption from payment of house tax and land rent for the period 1944—47 of all individual builders who built and reconstructed their dwellings in districts liberated from the German occupation; the allocation of plots of land for individual housing construction, the organisation of technical assistance; and the supervision of the quality of individual house building in towns and settlements. After the war, a Decree was passed dealing with the right of citizens to purchase and build individual houses, which provided for further application of the aided self-help principle.

Under the post-war Five Year Plan, the Government fixed the target for the 1946—1950 building activity of individual owner-builders at 12 million square metres out of a total of 84.4 million square metres. It has also earmarked large sums of money to finance individual house buildings. Rural dwellings have never been owned by the State. In the collective and individual farms, the houses are the personal property of the occupants and the reconstruction and building of houses in rural areas is the responsibility of the collective farmers and peasants. Government assistance is, however, necessary. The post-war Five-Year Plan specifies that the rural population "Shall be assisted in rebuilding or building their own homes by means of loans and the sale to them of building materials and ready-made parts."

Six million square metres of housing area was restored in 1946, the first year of the post-war Five Year Plan, and nine million metres area was rehabilitated and built in 1947. In addition, many citizens built for themselves their own houses in towns and industrial settlements.

Housing and municipal construction has been carried out on a particularly large scale in the towns liberated from German occupation. In 1947, for instance, more than five million square metres of housing area was built or rehabilitated these cities. The vast development of housing and municipal construction, especially in the period of the Five Year Plan has entirely changed the appearance of the cities in the USSR. Many storeyed dwelling houses have been built on a large scale by local Soviet State enterprises and institutions. Great attention is devoted to the building of cottages and the personal property of the working people. For building such cottages the Soviet States grant factory and office workers loans up to 20,000 roubles repayable in 15 years.

Soviet cities develop according to unified plan. Soviet authorities take care that there should be no contrasts between the centre and outskirts, that the whole city should be equally beautiful and well-ordered, and that the entire population should have maximum of municipal conveniences. Abolition of private ownership of land has enabled the Soviet State to decide questions of town building, of town improvement and of planning in a new way, to create architectural assembles on street squares and city embankments. Well-appointed dwelling houses, theatres, schools, department stores, stadiums, parks of culture and rest have been and are continuing to be built in the outskirts of big cities. Scores of new towns and thousands of new industrial settlements have been built, and the reconstruction of the old ones is proceeding. Many big cities have sprung up and many other with population of 100,000 and more have become centres of metallurgical, chemical, engineering and other industries. Improvements of cities and the building of new towns have been proceeding in all the republics constituting the Soviet Union. Thus have arisen such new industrial centres as Karaganda and Balkhash in Kazahkastan, Andizhan, Chrichik and Artik in Armenia. The transport situation has also entirely changed. Trams are now running in all the large cities of the USSR, and trolley and autobuses in many.

The German invaders inflicted incalculable damage to the Soviet cities. They devastated partly or completely 1,170 towns in the occupied regions. They destroyed or damaged more than 50 million sq. metres of housing area, 175 waterworks, 48 drainage systems, and 350 municipal electric power stations. Tramways were destroyed in 46 cities. Rehabilitation of these towns and municipal enterprises was started while the war was still on. In the current post-war Stalin Five-Year Plan period 84,400,000 sq. metres of housing area is to be built in the Soviet Union.

U. S. A.

The housing situation in the United States presents some fundamental differences from those of the various States of Europe and this is due to the general dissimilarities between American and European building and housing conditions. An essential characteristic of American housing is the prevalence of home owning. When people own their homes, they are likely to put a relatively larger amount of their income into housing than when they rent; consequently the danger of a housing shortage is probably less serious where home ownership is common.

The requisitioning of dwellings, compulsory billeting and the like were barely known in the United States, even during the war emergency and ceased at once upon its termination. Measures for the protection of tenants and restrictions upon the freedom of private contract between landlord and tenant are rare. Measures of a restrictive housing policy which interfere with established ideas of property rights are also unknown in America because the housing shortage in America was never acute. The housing shortage was local and strictly temporary for the war period. Due to the concentration of population in the industrial centres engaged in the manufacture of munitions and arms, and in the towns and villages where such manufactures were set up, great congestion took place during the war time. This particular form of housing shortage disappeared after the war. The second and more permanent form, which was not generally recognised as existing until after hostilities had ended and the public looked for conditions to become normal again, is found mainly in the large cities.

Consistent with these differences is the difference between the methods, measures and results of the housing policies introduced in America and Europe. The United States Government dispensed with subsidies and government housing, left the solution of the problem to the free play of economic forces and limited itself to indirect methods of encouraging building activity up to 1925.

In the United States, as in Europe, the war came in a period of declining building activity, resulting from the withholding of private capital from building enterprise on account of its diminishing profits. This had already produced a slight housing shortage. Thus the State subjected building operations to restrictive measures with a view to conserve capital, labour and materials for purposes of war.

On 12th February, 1918, Mr. Otto M. Eidlitz was accordingly appointed Director of the Bureau of Industrial Housing and Transportation and simultaneously a Bill was passed having for its object "to provide housing, local transportation and other general facilities for such workers as are engaged in arsenals and navy yards of the United States and their families." A total sum of 100 million dollars was allocated for "housing for war needs." On 25th July, 1918, the United States Housing Corporation was constituted as the executive organ of the Housing Bureau and empowered to expand the above-mentioned sum in the acquisition of building sites and the erection of buildings.

Apart from this, Congress had already on 1st March, 1918 empowered the United States Shipping Board to apply a sum of 50 million dollars for the erection of houses for shipbuilding workers. The activity of all these bodies extended to the following points:—

(*a*) To secure all the available housing accommodation in and near the industrial communities in which housing needs had arisen as the result of the war.

(*b*) To provide better transportation between work places and dwelling places.

(*c*) To assist in drawing up such regulations for the placing of war contracts as would tend to prevent or reduce housing congestion.

(*d*) To further the provision of new housing by stimulating, aiding and encouraging private capital to build, for example, by providing building materials at cheaper prices, etc.

(*e*) Finally, to supply dwellings by the construction and management of houses, apartments and dormitories. This

> involved both the direct construction of houses by the Government and financial assistance to individuals and co-operative building corporations.

Born out of the immediate requirements of the war, all government housing action came to a natural conclusion with the Armistice. In the 109 days during which the United States Housing Corporation operated, investigations were made in more than 100 cities, plans drawn for 128 sites in 71 communities and work started on 140 projects. The Emergency Fleet Corporation planned about 30 projects to house 128,000 war workers and their families. While some temporary housing was erected out of necessity, most buildings were permanent. Originally, 150,000 persons were to be housed. By the Armistice, only 40,000 were provided for. By the end of 1920 more than 80 per cent of the United States Housing Corporation's properties were already liquidated, the government taking a loss of about one third of the $100,000,000 appropriated to that agency.

The private building activity was resumed after the cessation of the hostilities. The demand for business and industrial construction was great and as this promised larger returns than housing, it soon secured the lion's share of the money, men and materials available. Wages and prices of materials increased so considerably during this period that the return of the capital invested became very shy and private capital was accordingly withdrawn from building activity.

The situation was so serious that Government proceeded to collect returns and make investigations with a view to combating the housing shortage. As early as 17th April, 1920, the Senate adopted a Resolution (No. 350) " authorising the appointment of a committee to enquire into the general building situation and to report to the Senate such measures as may be deemed necessary to stimulate and foster the development of construction work in all its forms." The final report of the Select Committee on Reconstruction and Production was presented on 2nd March, 1921.

On both sides of the Atlantic the situation was similar. The increased cost of construction and raw materials made building an unprofitable undertaking, so that private capital was diverted from the building industry. In Europe the legislative measures for the protection of tenants with the influence they exercised on rents, considerably affected the situation. In addition, the State stepped into the breach and covered the extra costs by government subsidies provided from funds raised by general taxation. This solution was quite unacceptable according to the prevailing opinion in America.

The report attributed the housing shortage to the general slump in the building industry, which was also manifested in the construction of roads, railways, waterways and industrial buildings, and represented the accumulated deficit of the last six years in all branches of the building trade. The Committee then considered the causes that might be found in the three basic factors on which the development of building activity depended ; coal, transport and credit.

The downward trend of building activity in the United States ceased and a recovery took place, resulting in an alleviation of the housing shortage during 1921. As rents remained stationery or even rose, buildings began to offer more satisfactory returns and therefore to attract capital. The New York Congress, early in 1924, called attention to the danger of over-construction in the city.

The Federal Housing Administration

The mortgage system prior to Federal Housing Administration had become an indefensible arrangement for victimizing home-owners. It was characterized by short-term security, high interest rates, a relatively narrow market (chiefly institutional) and illiquidity. The Federal Housing Administration created by the National Housing Act of 1934, was meant to encourage home building by insuring the lenders all new mortgage loans on small homes. No subsidising was intended. The Federal Housing Administration was designed as a going business corporation, insuring mortgages on an actuarial basis against losses that may arise out of the following types of lending activity; long term first mortgages on houses ; first mortgages on large scale fixed dividend housing projects ; and short term loans made for repair and modernisation of houses and other buildings. To be eligible for governmental insurance such mortgage loans must not exceed 80—90 per cent of the appraised value of the buildings and in the case of the higher amount the owner must make a down payment of the residual 10 per cent. The examples cited are typical of the case of Government credit on a contingent liability basis. The underlying philosophy that inspired the Federal Housing Administration was responsible also for the Home Loan Bank System and its complex complement of sub-agencies, the regional banks and their member institutions, as well as the Federal Savings and Loan Insurance Corporation and the Home Owners' Loan Corporation.

The Federal Home Loan Bank System which was the oldest of the existing housing agencies was established in 1932 to enable private enterprise to provide an adequate volume of long-term mortgage credit and to improve the conditions of investment of small savings. While the activities of the Bank System were over-shadowed during the worst of the depression by its more spectacular affiliate, the Home Owners' Loan Corporation, it began by 1934 to take its place as part of the permanent financial organisation, with its position strengthened by additional legislation and the formation of related agencies. The members of the Federal Home Loan Bank Board direct or supervise the following: the Federal Home Loan Bank System, the Home Owners' Loan Corporation, the Federal Savings and Loan Association and the Federal Savings and Loans Insurance Corporation.

The United States Housing Act of 1937 provides for the financing by the Federal Government, through local housing authorities, of slum clearance and low-rent public housing. Financial aid is given in two forms: (1) Federal loans to make up deficiencies in municipal borrowing power and (2) capital or annual grants or subsidies to make up deficiencies in the family income of tenants. The loans are for a period of 60 years at an interest rate half per cent higher than the going long term Government interest rate and may amount to as much as 90 per cent of the cost of housing projects. Capital grants are limited to 25 per cent of cost and annual grants to a percentage of cost equal to one per cent more than the going long term Government interest rate. For every new dwelling unit financed under the Act an equivalent amount of substandard housing must be removed. Legislation authorising the creation of local housing authorities to operate under the Act has been adopted in 39 States and more than 600 local housing authorities have been established. The United States Housing Authority was transferred on a similar status to the Federal Works Agency in 1939. In 1942 its functions were transferred to the Federal Public Housing Authority in the National Housing Agency created under the President's war-time emergency powers. In 1938, the Federal Housing Administration was empowered to insure mortgage loans on farm properties on a similar basis to urban properties, provided that not less than 15 per cent of the proceeds were spent for construction and repair of dwellings. The Federal Housing Administration made a costly effort to make this provision effective, but the results were negligible. By March 1942, the United States Housing Authority provided for in the Act had advanced or contracted for 747 housing projects, representing obligations of $770 million and comprising about 185,000 dwelling units in 548 cities or other political subdivisions. The initiation of new slum clearance and low rent projects was suspended for the duration of the war and the funds provided for in the Act were made available for the construction of housing for war workers and members of the armed forces. At the end of the war this war housing was to become part of the low-rent housing programme. By the end of 1943, 105,000 dwelling units had been completed under the original low-rent housing plan and were in use.

The National Housing Agency was established in February 1942, by Executive Order of the President, to consolidate responsibility for all non-farm civilian housing functions of the Federal Government during the war emergency. The office of the Administrator is concerned with major policy and operations which are carried out through three major constituents:

(*i*) The Federal Home Loan Bank Administration, which provides a credit reserve for home--financing institutions through the Federal Home Loan Bank System, insures savings through the Federal Savings and Loan Insurance Corporation and supervises the Home Owners' Loan Corporation.

(*ii*) The Federal Housing Administration, which encourages economical home construction and improvement by insuring loans made by private financial institutions.

(*iii*) The Federal Public Housing Authority, which has responsibility for the low-rent, slum clearance programme inaugurated under the U. S. Housing Authority and other publicly financed housing.

CHAPTER LXXXI

STATE AID IN HOUSING FINANCE IN FOREIGN COUNTRIES

Housing conditions in many countries of the East and the West after the second World war have much in common with those which existed after the first. Restrictions on rent, scarcity of materials and the consequent high costs of construction in the twenties discouraged private enterprise and therefore the State had to take positive steps to encourage building activity. In this the State was also no doubt influenced by the growing consciousness of its duty to improve public health. Once this policy was adopted, housing came to be regarded as a national service like many others and since then the State has been required to take up schemes of over-all improvement in housing conditions. Thus the objects of the State housing policy after the World war I, as also today, have been the elimination of scarcity and overcrowding, the clearance of slums and the creation of employment. Finance had to subserve this policy.

It will be interesting to see what steps have been taken to encourage building activity in some of the foreign countries. These will be examined under the following heads:—

(*a*) organisation of mortgage credit, (*b*) regulation of private credit, (*c*) financial assistance by the State or State agencies which would cover—(1) contribution to share capital of building societies, (2) mortgage loans at low rates of interest and for long periods, (3) subsidies, bonuses, grants and (4) Tax exemptions—(*d*) control over rents and letting subsequent to assistance and (*e*) enforcement of stipulated building standards.

(*a*) Establishment of a Mortgage Credit Market

U. S. A.

The U. S. A. set a fine example in establishing a system of twelve Home Loan Banks to finance house-financing member institutions which numbered 3,956 in June 1938. They provide to mortgage credit what the Federal Reserve Banks provide to commercial banking. In addition, there is the Savings and Loan Insurance Corporation to insure the accounts of individual investors in all the Federal savings and loan associations, referred to later, and chartered institutions of the savings and loan type, up to $5,000. The Federal Housing Administration also insures banks,trust companies and other approved agencies against losses on first mortgages, long term loans on houses, or large scale fixed dividend projects or short term loans for repairs or modernisation. Insurance is also available for privately made loans to public agencies, private corporations, co-operative societies, trusts, etc., for the purpose of rehabilitating slums or blighted areas, or for providing houses for rent or sale. Losses are paid by the Administration in Government guaranteed 2¾-3 per cent debentures which have a ready market at par. In 1938 the U. S. Housing Authority was established primarily for slum clearance. It was authorised to issue government guaranteed securities up to $500 million to finance 66 years loan to approved agencies at an interest rate of ½ per cent above the current rate on government borrowings. Further, to refinance mortgages which were likely to be foreclosed in the distressing period of the depression of 1929—33, the U. S. Government established the Home Owners' Loan Corporation to advance loans on existing mortgages. Government advanced to it $200 millions and authorised it further to issue bonds guaranteed by the Government as to principal and interest.

Under the National Housing Act of 1934, the Federal Housing Administration was authorised to promote the establishment of National Mortgage Associations. These Associations were expected to sell debentures and raise funds to buy the insured mortgages.

Besides these Government sponsored institutions, there are in the U. S. A., savings and loan associations (often called building and loan associations) similar to building societies. The borrower is usually required to become a member and amortise his debt by regular monthly service payments. The usual form of the first mortgage is an advance up to 60 per cent of value at 6 per cent per annum. Savings and loan associations go to 75 per cent of value while others restrict it to 50 per cent only. Mortgages insured by the Housing Administration may run as high as 80 per cent of the appraised value (since 1938, 90 per cent in the case of small one-family houses) at 5 per cent per annum.

In 1942, the U. S. A. took an important step to co-ordinate all the independent agencies numbering nearly 17 under the National Housing Agency established by an Executive Order of the President thus creating a co-ordinated mortgage credit market supervised by a single agency.

There are two recent noteworthy developments in mortgage credit in the U. S. A. With the introduction of insurance, the second mortgage has become virtually non-existent, the amortisation period of 20 years to 25 years has become normal, and the normal interest rate has come down to 5 per cent including insurance.

United Kingdom

Another noteworthy example of developing a mortgage credit market is that of the United Kingdom where about a thousand building societies with approximately 2,000,000 shareholders, 760,000 depositors and 1,400,000 borrowers have been responsible for private construction of houses. They obtain funds by selling shares to members and by accepting deposits from members and non-members. The average account of a shareholder is £285 and that of a depositor £200.

The building societies have been permitted by law to lend on first mortgages up to 75—80 per cent of the valuation by the society's surveyor ; up to 90 per cent if there is an additional security like Government bonds, or if the Government or a local authority guarantees the excess amount. There is also a system known as the builders' pool under which the lending society arranges with the builder-vendor of a house to guarantee by a deposit of say £50 the difference between a normal advance and the excess over that sum. The development of the housing societies has been remarkable. In 1913 their total assets were £65 millions; they gradually rose to £795 millions in 1944. The building societies generally lend for a period from 3 to 8 years though the official maximum permitted is 20 to 25 years. So also the bulk of their loans are for sums not exceeding £1,000.

As regards interest, before 1932, the building societies paid on their shares as much interest as Government bonds fetched and the interest charged on loans was generally 6 per cent per annum. Since then, however, with the general fall in interest rates, investment in building societies, which is tax-free to the investor, has become more attractive and there has been an influx of funds. It is, therefore, noticed that interest rates have been showing a tendency to fall.

Mortgage loans are also provided by commercial and savings banks and insurance companies but the amount of such loans is not very large.

France

After the World war I, while most of the private construction in France was undertaken by building societies, workers' dwellings were constructed by cheap housing organisation with State financial assistance.

There are eight agencies, *viz.*, Credit Foncier de France (Land Credit Society of France), Societe de Credit Immobiler (Housing Credit Society), Sous-Comptoir des Entrepreneurs (Contractors' Branch Bank), Social Assurance Organisations, Credit National (National Credit Society), Credit Agricole (Agricultural Credit Society) and Miscellaneous Assurance, Capital Investment, or Savings Societies, etc., and Bank Mortgage Credits, which supply mortgage credits.

Of these, the Credit Foncier is the biggest lender. It is a private limited company under the control of the State. It raises funds by issuing bearer bonds carrying interest and repayable within a fairly long period (sometimes as much as 75 years). It is allowed to make first mortgage loans, redeemable in 10 to 75 years, up to 50 per cent of market value. Its rate of interest on bonds varies from 4 to 4.75 per cent and it charges 6 per cent on loans. When the building is completed, the borrower can consolidate his debt by obtaining a loan from the Credit Foncier.

Finland

In Finland, a large part of mortgage credit is provided by savings banks, insurance companies and commercial banks. Besides these, there are private institutions which specialise in mortgage credit. In 1927, to provide mortgage credit, the State founded a semi-public institution based on co-operative principles known as the Housing Mortgage Bank. It advances first mortgage loans in urban areas up to 45 to 55 per cent of the value and charges interest equal to the actual yield on its debentures computed on the price. The borrowers, however, are required to share the cost of office expenses and of building up a reserve fund. Second mortgages are mainly provided by insurance companies, commercial banks, and in the case of public utility buildings, by the municipal authorities.

Holland

In Holland building construction is prominently undertaken by private enterprise represented by joint stock companies and co-operative societies. In addition, there are more than 50 mortgage banks which advance first mortgage loans up to 60—70 per cent of market value. Loans are redeemed at the rate of 2 per cent per annum. The rate of interest on loans ranges between 4.25 per cent to 5.50 per cent per annum. There is no provision for second mortgages. Housing Savings Banks were established in order to finance persons with small means to acquire one-family houses.

New Zealand

In New Zealand, as in England, the financing of building activity is undertaken by building societies registered under the Building Societies Act, 1908. In 1934-35, their number was 100, and the amount of their share capital, reserves and undistributed profits amounted to £5.9 millions, deposits £2.4 millions, and advances on mortgages £7.9 millions. The size of their average loan was £426. The average rate of interest on call deposits was 2.84 per cent, on deposits of 3 to 12 months 3.07 per cent and on deposits of 2 years and over 4.02 per cent.

Norway

In Norway, mortgage loan co-operative issues bonds to raise funds and generally advances on first mortgages up to 60 per cent of value; some of them at times advance on second mortgages also. In addition, there are two State enterprises, the Mortgage Bank of the Kingdom of Norway and the Norwegian State Small Holdings and Dwellings Bank which take part in advancing mortgage credit. They issue bonds guaranteed by the Government; the former grants first mortgage loans up to 40 per cent (in the city of Oslo up to 50 per cent) of value; while the latter advances credit for the construction of small houses with a municipal guarantee; total mortgage in such cases does not exceed 90 per cent of value. Insurance companies, savings banks, pension funds, etc., also advance on first mortgages up to 60 per cent of assessed value. Interest rate on the first mortgage is 4½ per cent per annum and on the second 5 per cent per annum.

Sweden

In Sweden, the Tenants' Savings Bank and the Building Society (known as H. S. B.) is typical of the building movement. About 60 per cent of the membership belongs to the working classes. The H.S.B. Union constructs buildings and finances them; 60 per cent of the finance is raised through the bank credit; additional finance to cover up to 90 to 95 per cent of the project is obtained from the savings bank deposits (of the H. S. Bs.) and the remaining 10 or 5 per cent is raised by the basic deposits of the members. Amortisation is usually arranged over a period of 20 years.

Besides these, there are two semi-official bodies, the Urban Mortgage Bank of the Kingdom of Sweden and the Swedish Housing Loan Bank which provide mortgage credit. Both are organised on co-operative principles and are supervised by the State. In each province there is one owner-borrowers' association co-operating with the banks.

(*b*) Regulation of Private Credit

In all countries private credit has played a prominent part in advancing mortgage credit. In many countries it was found necessary to regulate conditions governing the mortgage credits and to supervise the work of private agencies. Towards this end a decree was issued in Belgium on 7th January, 1936, subjecting private credit agencies to regulation. In Denmark too the work of credit and mortgage associations is supervised by the State. In England, the activities of the building societies are restricted by law to first mortgages up to stipulated limits. Regulation of private credit has, therefore, been found essential to establish the confidence of investors in private institutions.

(*c*) Financial Assistance by the State or State Agencies

Establishment of Government or semi-Government credit agencies was one form of State assistance. Also, direct financial assistance was offered through loans, subsidies, grants, etc. There has been, in some countries, a discussion of the various forms of State assistance, particularly as regards their effect on private enterprise and the appropriate manner of rendering it. A brief outline of some of the outstanding principles and methods is attempted below.

Canada

In Canada, under the Dominion Housing Act of 1935, later re-enacted as the National Housing Act of 1938, the Minister of Finance was empowered to enter into agreements with approved housing agencies, insurance trust loan companies and local housing authorities according to which Government would make an advance up to 20 per cent of the cost or appraised value of the property over and above the loan of 50—60 per cent which would be ordinarily made by a private lending agency. The necessary security was provided in a mortgage up to 80 per cent of the cost of appraised value jointly between the lending agency and the Dominion Government. The National Housing Act of 1944 provides for loans on prescribed conditions for home ownership, for housing for rental or for low rental housing.

U. S. A.

The National Housing Authority in the U. S. A. is authorised to advance loans to local authorities up to 90 per cent of the capital required to construct houses for low income families. The remaining amount has to be raised from other sources. The Authority, however, prescribes conditions regarding building costs, wages of building labour, rents, income and tenant selection before the advance is made. So also the local authority concerned is required to eliminate an equal number of sub-standard dwellings, either on the same site by direct slum reconstruction or elsewhere by enforcement of local ordinances. The local authority is also required to contribute in cash or by tax remissions.

It is interesting to note that 500 cities and countries have established Housing Authorities, which are not regular departments but independent public corporations (on the lines of the Tennessee Valley Authority) with power to issue their own bonds backed by Federal subsidy towards rent but not by the local government. These bonds were sold to private investors at rates which in 1944 averaged about 1.8 per cent for a period of 41 years.

France

The example of France indicates a new path in giving loans for building construction. In December 1936 the Government entered into an agreement with the Credit Foncier by which interest on current or future loans of the Foncier was fixed at a uniform rate of 6.3 per cent. To compensate for the loss which this would involve, the Treasury granted a loan to the Foncier of 3 million francs at 2 per cent.

The Government also makes loans for the construction of cheap houses to the public utility societies building working class quarters and the cheap housing societies constructing low-rent dwellings, of course, subject to restrictions regarding dividend and rents. Municipalities and departments too have established Public Cheap Housing Offices which are aided by them by endowments of funds or real property. The State advances loans to them from a special fund. The rate of interest is 2 per cent for average cheap dwellings, 3 per cent for improved dwellings and 4 per cent for medium-rent dwellings. The period varies from 25 to 40 years.

Netherlands

The Dutch Government advances loans to public utility societies and communes for the construction of working class dwellings. They are equal to the total capital outlay at 4-4¾ per cent interest per annum. While building loans are limited to a period of 50 years, those for site may extend up to 75 years.

Between 1920 and 1923, the State also advanced to private enterprise first mortgage loans up to 90 per cent of building costs (less any subsidy paid) at 6 per cent interest. From 1924 this facility was extended to second mortgage loans up to 25 per cent of costs with a maximum of 600 florins per dwelling for the construction of working-class dwellings. Any losses on these loans were to be shared half and half by the State and the commune concerned. In 1934 the limit for second mortgages was extended to 30 per cent of costs with a maximum of 700 florins per dwelling ; the total mortgage was not to exceed 90 per cent. These loans carried interest at 4 per cent and were limited for a period of 10 years. Loans for rural housing are available on the same terms.

Sweden-Norway

From 1920 the Swedish Government started giving second mortgage loans ; the total of such loans and subsidy, if any, was not to exceed 50 per cent of costs with a maximum of 15,000 krones, which was later on reduced by stages to 8,000 krones, at 4 per cent per annum. The necessary amounts were provided from a liquor tax. The system was replaced by the establishment of the Housing Loans Bank in 1929.

Since 1933 the State again started giving loans, this time on third mortgages to make upto a total loan of 90 per cent of the value of houses to private enterprise for the construction of houses approved by municipal authorities. When the State makes the loan, the commune undertakes to provide the balance of capital and the site free of charge and to guarantee rents.

Further, since 1936 large families are eligible both for loans and direct grants for building a small house or for reconditioning it if they already have one. Advances are made up to 90 per cent of costs, of which 2-9ths are granted outright and the balance is repayable.

Stockholm

The Stockholm and other municipalities also offer loans, generally on second mortgages up to a total of 60—95 per cent of the value as the case may require.

As regards rural housing, the Government has followed a policy of giving loans for homesteads with a maximum of 20,000 krones for buildings and 10,000 for farms, the actual loan being not more than 5-6ths or 3-4ths of the respective values. The rate of interest would be in proportion to the rate on Government borrowing. It varies between 3.6 to 4 per cent per annum for farms and 4 to 4.5 per cent per annum for homesteads. The loans are redeemable after five years and three years respectively.

Since 1933 the Government has also advanced loans to agricultural and other rural workers for constructing a small dwelling up to 100 per cent of value with a maximum of 6,000 krones (since 1938, 7,000 krones) free of interest and non-redeemable during the first five years.

Finland

Between 1920 and 1927 the Finnish Government offered to local authorities, public utility companies and private persons desiring to build houses on their own account, second and third mortgage loans, free of interest or redemption charges during the first ten years, or second mortgage loans redeemable from the very first year, up to 50 per cent (25 per cent after 1924) of building costs. In certain cases local authorities had to provide sites either free of charge or at a cheap rental and a loan equal to 15 per cent of costs.

Some municipalities also set apart special funds for giving second or third mortgage loans to public utility societies or to private persons to build their own houses. In Helsinki, for example, such loans extend up to 60 to 90 per cent of the value of the property at 6 per cent per annum.

The State also provides first mortgage loans to agricultural workers to build a house up to 75 per cent of value with interest at 5 per cent. Redemption is to be completed in 31 years. Such loans are made through funds managed by communes. In 1936, loans amounting to 20.3 million marks were granted for the construction of 2,251 houses.

In addition, the State offered loans for the improvement of houses in rural areas up to 75 per cent of costs of repairs or extensions with a maximum of 20,000 marks.

Australia

On the recommendation of the Commonwealth Housing Commission of Australia appointed in 1943, a Commonwealth State Housing Agreement was drawn up to provide for a rental housing programme which would ensure houses of good reasonable standard within the tenant's capacity to pay. This programme is to be administered by the States, but the Commonwealth will bear the principal financial burden. It borrows the money and lends it to the States and also meets three-fifths of the losses which occur because of rental rebates. The Commonwealth Government has also made provision in the Commonwealth Bank Act, 1945, for housing loans to individuals and building societies by the bank. Individuals are given loans primarily for the erection of homes or for the purchase of newly erected homes and the rate of interest will be the lowest practicable.

Subsidies, Grants, Bonuses and Guarantees

Among the forms of State assistance, subsidies seem to have been subjected to considerable criticism. Some even go so far as to assert that subsidies are like drugs to an addict and mean economic death. In most countries, after the World war I, subsidies were given in the form of capital contributions to current expenditure or low interest loans, etc., generally for the construction of cheap dwellings. It was found that subsidies generally benefitted only a fairly small number of families and not always the most necessitous. This happened because very often the rents (or the purchase price) of houses which were subsidised could not be reduced sufficiently to correspond to the paying capacity of families which were in need of better housing. On the contrary, sometimes relatively well-to-do families occupied them. Thus when subsidies are distributed among families not in need of them, they hardly improve housing conditions. It has been further argued that promotion of building activity by general subsidies leads to a rise in building costs and reduces considerably the social scope of State assistance. In some countries, therefore, this programme was limited or abandoned as soon as the most urgent needs were satisfied.

In spite of this criticism, it is generally admitted that they do play an important part in the housing programmes of many countries. If anything, these have to be larger because of the inflated costs of construction. But in the light of past experience the principles underlying them may have to undergo considerable modification.

The policy followed by the various governments in giving housing subsidies is discussed here briefly.

United Kingdom

The system of subsidies and grants has been very widely used in the United Kingdom to encourage construction of houses, particularly for the low income groups. Under the Housing (Additional) Powers Act of 1919, subsidies were offered to private enterprise as a lump sum payment which were non-repayable. The financial burden of the scheme was found to be too great and therefore by the Housing Act of 1923 the subsidy was limited to a contribution of £6 per annum per dwelling for a period of twenty years towards the loss which local authorities might suffer in building houses. It was reduced to £4 in 1927 and abolished in 1929. By the Housing (Financial Provisions) Act of 1924 a State subsidy of £9 a year in urban area and of £12 10s. in rural areas was offered for 40 years for houses constructed not for sale but for letting under special conditions, one condition being regarding the fixation of rent. The subsidy was reduced to £7 10*s*. and £11 respectively in 1927 and finally terminated in 1932. Apart from this, under the Housing Act of 1930, the government made for 40 years a grant of £2-5*s*. per person displaced for slum clearance and provided for a suitable accommodation. The local authority was expected to contribute from rates a sum of £3-15*s*. per person for a similar period. Again, the Housing Act of 1935 provided for a subsidy to local authorities for abatement of overcrowding.

The Labour Government's plan of post-war housing also contemplated giving subsidies. The Housing (Financial and Miscellaneous Provisions) Bill, for example, provided for: (*a*) a standard subsidy of £22 per standard house per year for a period of 60 years, (*b*) a subsidy of £28-10*s*. per year for houses for agricultural workers when constructed by local authorities, (*c*) a subsidy of £38 per flat, rising by a graduated scale, for flats built on expensive sites, with an additional amount of £10-10*s*. for high blocks where lifts are provided and (*d*) unspecified additional grants for plans approved up to the end of 1947 for houses built by non-traditional methods at heavy cost. It may be noted that the subsidies are payable to the local authorities only and not to private builders and the burden is divided between the Treasury and the local authority.

Canada

The Canadian National Housing Act of 1944 provides for slum clearance work to be directed by municipalities with assistance from the Dominion Government. Municipalities may buy, clear and develop land according to the official plan and sell it to a limited dividend corporation or an insurance company for the construction of a low-rental housing project. The Dominion Government will assist to the extent of one-half of the amount by which the cost of acquisition and clearance of land exceeds the cost at which the land is sold.

Further, insurance companies are now allowed to invest up to 5 per cent of their total assets in Canada in the purchase of land and in constructing on it low cost or moderate cost rental housing projects. The Government guarantees a return of 2½ per cent of the cost of the project in any year.

As regards rural housing, Government will pay to a lending institution which arranges a joint loan for the construction of a house in rural areas, a sum of $20 for each loan and necessary incidental expenses. For such loans, the payment of principal, interest and taxes must coincide with income from farming operations. Further, the Government will guarantee losses up to 5 per cent of the aggregate principal amount of the guaranteed home improvement or extension loans made by banks or other agencies.

France

The Government of France has offered interest bonus on borrowed capital under the Decree-laws of 1927 and 1937 for a period of 15 years. The latter measure provided that it was to be neither greater than 4 per cent nor exceed half the interest actually owed. The total amount of annual bonuses was not to exceed 40 million francs. It was found that in 1937-38 the average bonus rate came to 3-3.35 per cent. By a subsequent decree-law the scope of interest bonus was extended and the State was authorised to give interest bonus on even the capital invested by owners themselves.

As regards cheap housing, since 1928 the State shared in the interest charges on loans given to cheap housing organisations by savings banks. When the rate of interest was 6 per cent, the organisation paid 2 per cent, the department or commune ½ per cent and the State paid the rest.

Holland

The Dutch Government provided subsidies to private builders for the construction of working and middle class houses in the period 1920—23. In the beginning the maximum was fixed at 2,000 florins (2,500 florins in Amsterdam) per dwelling but it was gradually reduced to 300 florins and finally discontinued from 1st January, 1924.

Improvement of slums was made a responsibility of the communes and the State contributed towards rent for persons who were housed after the clearance of slums was undertaken. From 1938 provision was made for making non-repayable grants for the reconditioning of working class houses equal to one-third of the costs not exceeding

165 florins per dwelling. Two thirds of the grant was payable by the State and one-third by the commune.

The Dutch Government has made provision for subsidies and grant for slum clearance in the rural areas too. The State and the commune together grant a subsidy of one florin per week for each dwelling intended to be used for persons evacuated from other dwellings. Since 1927, building grants have also been provided equal to half of the costs not exceeding in each case 600 florins; the grant is shared equally between the State and the commune.

Norway and Sweden

In Norway and Sweden the States have granted lump sum and annual recurring subsidies for the construction of houses. In the former, subsidies up to 20 per cent of costs were granted in the immediate post-war years but they were soon discontinued. In the latter the subsidy amounted to one-third of costs, the main intention being to cover depreciation in value which may take place at a later date. In the case of co-operative buildings, the State contributes towards rent equal to 30 per cent for families with 3 children, 40 per cent for families with 4 children and 50 per cent for families with 5 children. It has also extended guarantees for interest or principal or both for private capital directed to building construction. On this basis insurance companies were invited to participate in building construction.

Australia

In Australia, to encourage private enterprise, Governments in the States of New South Wales, Victoria and South Australia are encouraging co-operative housing schemes under their guarantee. In South Wales, for example, any seven persons may form a society which will borrow money from lending institutions, lend it to members and arrange repayments on rental purchase terms over a long period of years. The New South Wales Government guarantees repayment of the money to the lenders. The societies financed 18,982 dwellings up to 31st December, 1941. In some circumstances the New South Wales Government also guarantees loan without deposit for the building of houses by members of the Community Advancement Society. Generally speaking, advances are restricted to 80—90 per cent of the valuation of the houses and the land.

Tax Exemptions

In France after the World war I all new buildings for housing were exempted from land tax and local taxation for a period of 15 years after completion.

Co-operative housing in Norway and Sweden and many other European countries has been exempted from certain taxes.

Documents and contracts are stamp duty free; bond issues for financing construction are exempt from capital and income tax. Often municipal transportation taxes on the movement of building material are not levied.

Control over rents and letting

In order to prevent speculative building and exploitation of scarcity, State control over rents and letting of houses constructed with State subsidies and grants appears to have been used in some countries. Denmark, U. K. and U. S. A. have made use of these conditions subject to which advances or subsidies were given.

Building standards

In most countries, in the interest of public health, the State has laid down building standards not only for the State aided buildings but even for those privately constructed. The need for such restrictions is great in view of the growing overcrowding in towns and cities.

The principal measures of State assistance to building activity adopted in many countries are as follows: The Canadian Act of 1944 has made provision for building research which appears to be very necessary for the successful execution of any national plan. A National Building Code and model zoning bye-laws prepared by the National Research Council have already been used extensively as reference works by the Canadian municipalities. 'Panel' on radiating heating in relation to the Canadian winter is being tested out in two experimental houses built by the National Research Council. Models for the most efficient construction of prefabricated houses are nearing completion in the laboratories.

The research laboratories of the Department of Mines and Resources offer as a solution of the hardwood flooring shortage, a new laminated flooring composed of softwoods with hardwood facings. Experimental furniture has been made of moulded plywood.

Contribution to share capital

The instances where State has contributed to share capital of the institutions engaged in the building trade are only a few. In Belgium, the State and local bodies have subscribed to the share capital of building societies approved by the National Society. In 1937, the capital of 289 societies amounted to 308 million francs, of which 13 per cent was contributed by the State, 13 per cent by provincial governments, 40 per cent by local authorities and 6 per cent by public assistance committees. In the United States, the Federal Government has contributed 25 million dollars to capital of the Home Loan Banks (while member institutions have contributed only 37 millions), while the Reconstruction Finance Corporation, a Federal body, has contributed $10 millions towards capital and $1 million towards surplus to the National Mortgage Association.

Aided Self-Help Housing

There are many examples of different types of aided self-help housing in the United States, and there is ample evidence that the idea is gaining ground as the people try to come to grips with the housing shortage and high costs of construction. In 1937, when some members of the American Friends Service Committee conceived the idea of a self-help housing project, the miners in Fayette country, Pennsylvania, were living in dirt or stone-floored shacks with neither water nor electricity. The Committee thought that a miner could amortise a $2,000 loan at 2 per cent in twenty years, by paying $10 a month *plus* $3 for taxes and insurances. With the miners supplying the labour under a co-operative agreement, it was believed such a plan would be practical. The Committee accordingly purchased an abandoned farm of 200 acres in Fayette country and the miners formed study groups to learn how to drive nails, lay sewer pipes, mix mortar, etc. The miners arranged their hours of work themselves and each man kept a time card recording the number of hours spent on his own and his neighbours' houses. The man with the largest number of hours to his credit received first priority for the next house to be started.

Today there are fifty miners in the co-operative community of Penn-Craft who own two-storey stone houses fully equipped with modern kitchen, showerbath, oak floors and central heating which cost $13 a month. The cash cost to the miners was the $2,000 loan from the Committee to pay for the land and the building materials. Each house represents almost 3,500 hours of self-help labour worked in spare time.

In Kearney, New Jersey, twentyfive veterans of the second World war have undertaken a cooperative home-building project. Each of them advanced $400 in cash, and part of the money was used to buy an area of land large enough for 24 lots, each 50 feet wide. The mortgage was secured on this land, and with the mortgage money, together with the remaining cash, materials were bought for the first house. The whole group worked on the houses from foundation to finish. When the first house was completed, it was mortgaged for its cost and the money received from this mortgage was used to buy materials to start two more houses. This process was to continue until all the houses were built. Private American lending institutions are now gaining experience in aiding self-help housing. For example, the Hancock Savings and Loan Company of Findley, Ohio, has granted loans for the construction of houses by stages, beginning with the basement, the borrower undertaking part of the construction himself.

Several institutions in the United States have been working on the development of simple designs and uncomplicated techniques which would make it easier for the layman to contribute to the building of his own home. Several reasons why the self-help scheme for home ownership is likely to become a permanent featureand to expand inthe United States have recently been pointed out by a banker, who suggests that, with the growing recognition and acceptance of the system, new methods will be worked out to make the operation less difficult for the builder. Today with the forty hour work weak, a worker has much more free time than he has had in past years. The cost of new building is not likely to decrease to the point where everyone who wants a house can afford it. At the same time, many people who want a house are capable of providing much of the labour needed to build it. For these reasons, it is urged, that lending institutions should develop machinery to service this type of business.

CHAPTER LXXXII

GENERAL COMMENTS AND SUGGESTIONS

Details about various schemes formulated by the Central and the State Governments from time to time have already been given and so also the views of the various Commissions, Committees and authoritative bodies in regard to tackling the crux of the problem—Finance. Here it may be just as well to recapitulate and consider some other suggestions for dealing with this problem. We could also take a leaf out of the books of some of the foreign countries who have succeeded in tackling this problem to a great extent.

(*i*) It is obvious that the magnitude of the problem is such that no Government can meet it out of its own funds. A more effective solution, therefore, lies in attracting private capital which has not been forthcoming of its own accord. It has to be tempted through Governmental assistance and support. A way would seem to lie in the floating of a Government loan for the financing of housing schemes, but this would involve Government into direct financial obligations and would not combine the economy and watchfulness of the private entrepreneur; besides it is a matter for serious consideration, if the execution and financing of housing schemes cannot be safely left to private enterprise in the face of the other equally serious problems facing the States. Government should, at any rate, avoid taking full responsibility for raising all the funds. The housing finance companies set up by the Ministry of Rehabilitation are, from this point of view, a move in the right direction. But even in this scheme, the Government is too directly involved and the limitations on Governmental funds will restrict the operations.

(*ii*) In other countries, public action has taken a variety of forms, designed to assist the building of houses for private ownership and to provide publicly-owned houses for rental at low rates to low-income families. Measures have been taken, in particular, to improve the organisation of real-estate credit and to guarantee or insure mortgage loans ; to provide such loans on favourable terms through specially created State or other public institutions ; to grant reductions in or exemptions from property taxes ; to subsidise and in other ways facilitate slum clearance and the provision of low-rent housing by municipalities and specially created housing authorities ; and, in certain cases, the State itself has undertaken large-scale housing programmes, acquiring land, commissioning private firms to build the houses on its account and letting the houses at low or moderate rentals to selected tenants.

In numerous countries, first mortgage loans cover only a relatively small proportion (30 to 60 per cent) of building costs and the construction of housing, either for rental or for ownership ; for the low and middle-income group is, consequently, difficult to finance. Rates of interest on second and third mortgages are commonly quite onerous, and the markets for these types of security are seldom well organised the result being that builders and potential purchasers of houses, who possess relatively little capital find great difficulty in entering the housing market. Measures have, therefore, been taken in various countries to improve the organisation of real-estate credit and both Central and Municipal Governments have frequently assumed contingent obligations by way of guarantee or insurance of mortgage loans in order to increase the proportion of the marketable value of property on which mortgage institutions may safely grant loans. The guarantee of second mortgages is a common method by which municipalities, with their relatively limited financial resources, can safely participate in encouraging house construction. Under this procedure the cost price of new property may be covered up to 90 per cent by mortgage loans, and substantial reductions in interest rates may be effected. Full details as to what action various important countries have taken to provide finance on the above lines have already been given in Chapter No. LXXXI.

(*iii*) By assuming contingent liabilities through the guarantee or insurance of mortgage loans, Governments at all levels can usually safely assume greater responsibilities in connection with the encouragement of house-building, given good management and the sound selection of risks, than they might be able to assume if they were to depend entirely or mainly upon such devices as direct housing subsidies. The method of guaranteed dividends on Government accepting the contingent liabilities is not new to India. The Indian Railways system was developed through this method. With the Government guarantee for dividends it would not be difficult to raise necessary funds for financing the housing programme. The need for government blocking huge amounts in house construction will be obviated and construction work can be increased many times with the provision of a fixed sum for meeting the losses, if any, in making good the short-fall in dividends. Incidentally, this move would have a strong anti-inflationary effect also.

(*iv*) To a limited extent, tax exemptions or reductions have been used by governments at different levels to encourage house-building. This method has been tried in India when expenditure on house construction was exempted from income tax for a period of two years. This method did not bring any marked results because most of the people did not have money enough to construct houses and some did not invest money in new house construction for fear of Government requisitioning them and paying a rental much below the market rates. What is, therefore, more necessary under the present circumstances is a declaration by Government that a new house built exclusively with private capital will be immune from being requisitioned. The lure of high rent returns will attract private capital for house construction. In fact, this has already been done in Delhi and U. P. New houses constructed after 1st January, 1951 are not subject to the Rent Control and Requisitioning regulations.

(*v*) Direct subsidies were tried in various countries but they resulted in raising of cost in the building industry and had to be given up. This method was tried by the Ministry of Rehabilitation also in the case of displaced persons' housing but they too had severely to restrict it. A better way in India may be to guarantee the supply of materials at controlled rates or even at concessional rates, if possible. This would at least ensure construction of the house and the money being put to the use for which it is advanced. Money subsidies, if possible, should be given to local and State Governments or to the co-operative institutions subject to necessary control. This aspect has, in fact, been recognised and provided in the latest Subsidised Housing Scheme of the Government of India.

In short the main points are :—

(*i*) how can the governments raise money to meet the losses in case they guarantee dividends of housing companies ; and
(*ii*) what should be done to help housing companies to raise necessary funds.

Regarding the second point, the debentures of even shares of such companies in which Government have guaranteed dividends may be included in the list of trustee securities. This will facilitate the investment of trust monies and reserve funds of insurance companies and banks in housing enterprise. The Government may also consider the investment of a part of postal savings bank deposits and surplus funds of co-operative institutions. Should even these national sources prove to be inadequate, we may seek international assistance through a loan from the International Bank. The I. L. O. Industrial Committtee on Building, Civil Engineering and Public Works at its second session in March, 1949, adopted a resolution, suggesting the International Bank's assistance for housing of lower-income groups.

The first question relates to the raising of necessary funds to meet the losses incurred in paying guaranteed returns on the paid-up capital of housing companies and for subsidising the co-operatives and local bodies. Apart from the amount which may be allocated from the general revenues for this purpose, the Government of India may collect further sums through a special cess. In view of the national emergency and the need to make them available for low-cost housing at reasonable rates, limitations may be imposed on the issue of building materials at controlled rates to priavte individuals. In special cases, however additional quantities may be issued but at a higher cost and this difference between the controlled rates and the higher sale price should be credited to the funds for the finance of cheap housing. Higher prices will, on the one hand, act as a deterrent and, on the other, provide money for subsidising housing for the class of people who are likely to suffer by the extravagant use of building materials by the rich.

(*vi*) It has been suggested in some quarters that a tax should be levied on houses which have been requisitioned by the Government on pre-war rent rates or for which rent has been controlled and which have been let out at concession rates to Government employees at a standard rent or 10 per cent of the salary, whichever is less. Some steps have already been taken in this direction. Pooling of residences and levelling up of rents is an important step which Central Government have already taken.

(*vii*) Another suggestion is to levy a tax on the occupants of houses under rent control and on unearned increments in land and building values since the war. These measures were adopted in Germany after the first World war when housing shortage was most acute. Special steps were taken by German Government to fill the wide gap in the cost of buildings and the rentals to be expected.Public grants-in-aid, the cost of which was shared among the Federal, State and municipal authorities, were provided for the construction of small dwellings. To meet part of the costs of the grants a building duty was levied on existing dwellings. Two principles were adopted: first, that if any increase in rents were permitted it should be controlled by legislation in the interest of the tenants (this has been done in India too);and, secondly, that unearned increment should not go to the private owner, but to the community for the promotion of building. The building duty was to embody the second of these principles, which was embodied in the Act of 26th June, 1921. The Act also authorised the Supreme State authorities to raise the necessary funds for promoting building by a land tax instead of the rent tax.

(*viii*) Loans may be given to societies rather than to individuals as collective security is always safer than any on an individual basis. The housing companies may construct the houses themselves and then hand them over to the co-operative housing societies or may financially assist the societies to construct the houses of the approved type. In the latter case construction costs and supervision charges may also be reduced by the members themselves, if possible, undertaking or assisting the construction work. Plans in regard to co-operative housing followed in different foreign countries as well as in India have already been given and some of these can suit us.

(*ix*) The Central Government provided a sum of rupees 9 crores for Housing during 1952-53. They have now, in consultation with the State Governments, Employers' and Workers' representatives, allocated sums to be given to various State Governments and co-operatives as loans and subsidy during 1952-53 and also decided the specifications, etc. of the houses to be built. It is, however, felt in some quarters that the scheme should also have provided :—

(*a*) for housing of the low income groups of workers (whether industrial or non-industrial) in urban areas either in houses built by the State Government or a local authority or by the workers themselves on lands to be prepared and settled with them ; and
(*b*) for clearance of slums with or without subsequent purchase of the land by Government or a local authority.

(*x*) Slums have grown up in practically all the major industrial cities of India as a result of laxity in enforcing building regulations, the indifferent attitude, till recently, to conditions of living amongst industrial workers and the high land values prevalent in certain cities which led the landlords to exploit their advantage to the fullest. These slums are a disgrace to the country and it is a matter of regret that Governments, both Central and State, have so far paid little attention to this acute problem. No city can be considered healthy which tolerates within itself the existence of a highly congested area with the minimum amenities of life where some of the poorest elements of population are huddled together in almost sub-human conditions. The slums are a national problem. A person who becomes a juvenile delinquent or a tuberculosis case because of slum conditions is no less a national than a local liability. From the national point of view it is better to pay for the cost of clearing slums than to continue to pay the mounting cost of slums and suffer their destructive effects upon human lives and property indefinitely.

A section thinks that slum clearance is an essential part of a housing policy because the housing we propose is meant for the class of people who are now generally dwellers of slums. Therefore the scheme of housing should proceed *pari passu* with the scheme of slum clearance, at least in the major industrial cities, so that when a housing estate is ready steps should be taken to remove the slum dwellers to the newly built houses and to proceed with the clearance of the slum area in question. The Hon'ble Prime Minister, who visited Kanpur in the month of February, 1952, was shocked to see the slums in Kanpur. He expressed the view that these slums should be demolished immediately and replaced by temporary structures in more sanitary conditions. Mr. B. Shiva Rao, M. P., also told the House of People in May last (1952) that time had come for a declaration of war on slums throughout the country. He said that the municipal boards were either too weak or indifferent and were unable to resist the very powerful influences of vested interests, namely, the landlords of the slum areas. He remarked that if there was any section of the community which deserves no consideration whatsoever, it was the slum owner.

(xi) The problem of housing in rural areas is a vast one as the great majority (more than 80°/o) of the entire population of India lives in villages. The slums from cities cannot be eliminated unless the living conditions in rural areas are ameliorated because the pressure of population shifts towards cities and causes overcrowding. The problems which present themselves in the rural areas are, however, slightly different in character and do not call for expenditure of large sums for individual housing units. Unlike in towns, land value, and consequently congestion, is not a principal factor. The immediate needs of the villagers are primarily adequate water-supply, improved communications and arrangements for disposal of sewage and waste-products. In this connection the community development projects taken up under the Indo-American Technical Aid Programme afford the most suitable venue for demonstration of improved techniques and designs for rural housing. Emphasis should be laid on the use of local materials and self-help. In this connection we should take a lesson from Puerto Rico where conditions are almost similar to those obtaining in India. In that country a rural development programme included safe tenure of building-cum-garden plots with aided self-help in house construction, in gardening, in water-supply and sanitation development and in multipurpose co-operative activities.

(*xii*) If housing schemes are to be undertaken on a large scale, there should be provision for construction through different agencies at the same time, *e.g.* by the State Governments or by statutory authorities like the improvement trusts or by the employers. Further, in cases of industries located in areas far away from towns, it would be more advantageous to require the employer to build houses for his employees than for a housing board to undertake this work. Any legislation undertaken should have enabling provisions which would permit the operation of one or other of different schemes suited to individual States or areas as the case may be.

(*xiii*) Another suggestion is that where the employers build houses themselves, there should be no cash subsidy, but Government should merely assist in providing them two thirds of the capital in the form of a loan at 5½ per cent interest repayable in annual equated instalments over a period of 25 years.

(*xiv*) It has also been suggested in some quarters that no industry should in future be started without express provision of housing for workers even if a provision is made for officers' housing. This will be a check on future slums. The existing industries also must realise that workers' houses must be provided within a certain period and the cost or part of it must be a first charge on them. This, however, is a very contentious point as the industrialists on their side say that if this condition is insisted upon it will retard the growth of the industries. They also assert that existing industry cannot divert capital to the provision of houses as they will not be able to compete in the market in that case. The Bombay Government have steered a middle course and passed an Act, called "The Bombay Building (Control on Erection) Act, 1948," under which permission to extend industrial premises is granted only on the condition that the employer will provide housing for 60 per cent of the labour to be employed on account of expansion. In our opinion this is a sound legislation and other States may like to consider legislation on similar lines.

(*xv*) On the research side emphasis should be laid on the following:—

(*a*) Basic building materials such as bricks, tiles, high-tension steel, laminated timber, calcination of ordinary soil for use as bricks and the possibility of utilizing indigenous materials as building components. Further research work on stabilisation of soil by bituminous binders is also desirable.

(*b*) Possiblity of use of substitutes such as timber, bamboo, etc. for steel and other traditional building materials. Several non-traditional materials have been developed at the Forest Research Institute, such as structural boards from woven bamboo mats after suitable treatment: further researches are necessary.

(*c*) Revision of building codes, specifications and factors of safety.

(*xvi*) The problem of housing the poor is very difficult to solve as most of the population in the area cannot pay an economic rent even for houses that are considered to be not better than the irreducible minimum in quality. The solution of the problem must be sought in reducing costs of labour and building materials. This might be found in "aided self-help", use of locally manufactured materials and efficient building methods mostly by unskilled labour. Differences should be made:—

a) for the varying climates in the area;

b) between the problems in the urban and rural areas;

(*c*) between the building activities to cope with the normal population increase and those to deal with the ubiquitous housing shortage.

(*xvii*) The Hon'ble the Prime Minister also, inaugurating the symposium on scientific principles and their application in tropical building design and construction organised jointly by the UNESCO Science Co-operation Office for South-East Asia and the National Institute of Sciences of India, emphasised on the use of local material and expressed the hope that Indian and foreign engineers and experts would evolve methods by which indigenous materials and resources could be used effectively to build millions of houses for the people and they would not depend too much on theoretical principles and machinery and steel and cement. He said, "How to make the most of what we have? That is the problem." About climatic and other considerations he said that we have to build millions of houses and due regard must be paid to considerations of climate. In Bengal, for instance, a mere brick-and-mortar structure would look horrid in the countryside in which a thatch-and-mud hut might fit in more beautifully. Shri K. D. Malaviya, Deputy Minister for Education also laid emphasis on the use of local material in villages—mud houses with thatched roofs. He was of the view that good and durable houses can be built out of the mud and thatch that is available. The fundamental thing is to find out methods of treating the local soil available for house-building so that known defects from which our houses suffer may be removed. He said that we should indicate to our villagers through our scientists and soil experts how best to improve the mud houses. We should avoid complicated machinery and set up a network of information and analysis centres in the country from where the common man may get simple tips for the improvement of existing mud-houses. He said: "In our own country earth, mud and thatch are materials of antiquity and they have been employed from ages past in various forms, one of them being a plastic mixture of mud and fibres, another sun-dried bricks and yet another stabilized earth......"

It is hoped that our engineers and architects will keep these points in view while planning housing on a large scale.

(*xviii*) It is also desirable to organise the building trade in all its aspects including training of labour and technical personnel of all grades. It is unfortunate that importance of technical training in house-building labour is yet insufficiently realized. In Europe and America, it has been found that training of personnel not only improves the quality of work but expedites the process of building.

CHAPTER LXXXIII

CONCLUSION

The people of the world face a great housing crisis. The need is so great and the problem so complex that local and national Governments, International agencies, employers and employees are all assuming increasing responsibility to tackle this problem. It is gratifying to note that this problem has started receiving the attention it deserves during the last few years and an impetus is being given to the solution of the problem from the highest level.

Improved housing is the first step towards an improvement of the standards of living, behaviour and morals of the Indian industrial worker. With all these will come the conquest of preventible disease and mortality and improvement of health and output. The problem of housing is, undeniably, the most central for the efficiency and well-being of the Indian working class. To those who assert that India cannot afford to spend more money for industrial housing, there can be only one reply that she can no longer afford to delay such expenditure.

The main difficulty, however, in the way of promoting suitable schemes of housing is finance. The present cost of building materials and building labour is so high that industrial workmen and other persons belonging to the low-income group are unable to pay the economic rent for the barest minimum of accommodation which is desirable and necessary from the point of view of health and family privacy. Again, the problem is so vast that neither the Union Government nor the State Governments can bear the financial responsibility of meeting subsidies required. The present position of industry is also such that it cannot meet any heavy demands on the welfare of labour from its current receipts. It is true that the employers earned large profits during and immediately after the war. The present position is, however, different. There are very few industries which are earning more than the normal rate of profits at present. Any special financial demand for housing on industry would, therefore, amount to a kind of levy on capital or profits earned in previous years. The problem can, however, be solved by the joint efforts of the Central and State Governments, employers, workers and the people at large. In the future planning of Indian cities the employers and the employees, the local authorities and non-officials interested in social work will have to rise in a spirit of co-operation and implement housing schemes with lasting zeal. To accept that nothing can be done amounts to a gospel of despair. Although resources and technicians are in short supply, the aspirations of man are not. Practical solutions to the crushing problem of housing must be arrived at in the near future. They should combine the initiative and resourcefulness of the people, the rational application of local materials and skills, the social advantages of group work and the best use of resources and technical knowledge available. Details of the schemes formulated and various comments and suggestions have already been given under relevant chapters.

An attempt has been made to present briefly and clearly everything on the subject of housing the industrial worker for the benefit of those who are engaged in this branch of social service as well as those who are interested in the economic and industrial problems of our country. If the attempt succeeds in assisting all concerned in their noble but none-the-less difficult task, and making the employers, Government and municipalities more 'Welfare-minded' in relation to their employees, and helps also in mobilising public opinion in favour of hastening ameliorative measures for proper housing of our labour population, it will have been amply justified and rewarded.

APPENDICES

APPENDIX I

Local (*Italics*) words explained in English.

Ahatas	Groups of small dwellings of workers in U.P. and Punjab.
Bhayyas	A class of people from Bihar and Eastern U.P.
Bhishti	Water-carrier.
Bustees	Workers' dwellings (in Bengal etc.)
Chatai	Mattress.
Chawl	Workers' dwellings (in Bombay).
Cheries	Workers' dwellings (in Madras).
Chhints	Printed cloth.
Chula	Oven (fire-place)
Dal	Pulses.
Darwans	Gate-keeper (Guard).
Dhobi-Khanas	Cloth-washing-yards.
Dhowrahs	Coalminers' dwellings.
Doba	Small ponds (found generally in Bengal).
Gallas	Double room houses for workers.
Gunthas	Measurement of land in Bombay State.
Hookah	Smoking pipe.
Jamadar	Headman.
Khalasis	Persons employed on odd jobs.
Khaprail	Tile
Kutcha	Temporary.
Mistries	Mechanics.
Moris	Drains (outlet for dirty water).
Nahani	Bathing place (Bath-room).
Nallahs	Big drains.
Nazrana	Present (consideration received in advance).
Panchayats	Smallest organisation of local authority (council of villagers to settle local disputes etc.)
Pardeshi	Foreigner (coming from other parts of the land).
Pucca	Permanent.
Pugri	Illegal gratification (generally in use by landlords for letting out buildings).
Sabhas	Councils (conferences).
Sirdars	Headmen (of workers).
Sishgars	People working in glass industry.
Soorki	Red lime etc.
Tatties	Structures made of bamboo pieces (used as walls etc. in poor dwellings).
Tindals	Headmen of workers in rice mills (Malayalam word).
Zenanas	Ladies chamber (Part of house in which ladies reside).

APPENDIX II.

A. **Extract from Industrial Truce Resolution (1947).**

"This Conference considers that the increase in industrial production which is so vital to the economy of the country cannot be achieved without the fullest cooperation between labour and management and stable and friendly relations between them. The employer must recognise the proper role of labour in industry and the need to secure for labour fair wages and working conditions; labour for its part must give equal recognition to its duty in contributing to the increase of the National income without which a permanent rise in the general standard of living cannot be achieved. Mutual discussion of all problems common to both and a determination to settle all disputes without recourse to interruption in or slowing down of production should be the common aim of employers and labour. The system of remuneration to capital as well as labour must be so devised that while in the interests of the consumers and the primary producers excessive profits would be prevented by suitable measures to taxation and otherwise, both will share the product of their common effort after making provision for payment of fair wages to labour, a fair return on capital employed in the industry and reasonable reserves for the maintenance and expansion of the undertaking.

For attaining these objectives, this Conference recommends :—

(*d*) that, as a first step towards improving the standard of living of workers immediate attention should be devoted to the problem of housing of industrial labour; the cost of each housing should be shared in suitable proportions between the Government, employers and labour, the share of labour being given in the shape of a reasonable rent.

The principles enunciated above having been accepted, this Conference calls upon labour and management to agree to maintain industrial peace and to avert lock-outs, strikes or slowing down of production during the next three years."

B. **Extract from Government of India Resolution dated the 6th April, 1948 on Industrial Policy.**

"The Government of India are also taking special steps to improve industrial housing as quickly as possible. A scheme for the construction of one million workers' houses in ten years is under contemplation and a Housing Board is being constituted for this purpose. The cost will be shared in suitable proportions between Government, employers and labour, the share of labour being recovered in the form of a reasonable rent.

In order to ensure quick decisions on the various matters arising out of the Industrial Truce Resolution, Government are appointing a Special Officer."

APPENDIX III

Resolution of the National Planning Committee on the Report of the Sub-Committee on National Housing

1. We recommend the creation of statutory authorities, namely (*i*) Central Housing and Planning Board; (*ii*) Provincial Housing and Planning Boards. The former will be concerned with general principles, policy, programme, finance, technique, standardisation and research on broad lines. The latter will guide and control all schemes, but not their details. Necessary legislation will be undertaken which will provide for the initiation and execution of the programme. Women's role in National Housing being important, we recommend that they be given adequate representation on these Boards.

2. Rural Housing should be undertaken in coordination with rural reconstruction, and should generally be based on ownership, and not tenancy, of the house and site, the latter on a basis of long lease if ownership is not possible. The programme of such rural housing should be carried out with due regard to the environment as well as the resources of the country, and with such aid from the State as may be necessary. The programme should include particularly the building of *Panchayat Ghars* in villages where community life and cultural activities of the villagers can be developed including school, library lecture hall, co-operative store and the like. Adequate equipment for games and sports should also be provided. The *Panchayat Ghars* should make due provision for the needs of women and children.

The State aid mentioned above should particularly include advice or assistance in matters of village sanitation and skilled labour.

3. Cattle should be accommodated in such a manner that the health of human being does not suffer and proper sanitary arrangements are provided.

4. Urban housing is to be regarded as a public utility service, the responsibility for which primarily rests with the State. This should not, however, exclude private enterprise, suitably controlled by the State.

5. Definite standards for various types of unit house accommodation shall be laid down by the appropriate authority.

6. The State will make requisite arrangements for financing the Housing programme, if necessary, by loan.

APPENDIX IV

Extract from Report of the Bombay Rent Enquiry Committee.

It is necessary that a minimum standard of amenities should be prescribed by law. It should be made applicable even to existing buildings, in so far as it is practicable. The amenities which should be compulsorily provided for are as follows:—

(*i*) There should be no back to back houses, and in a house, no back to back tenements with one room. Each such tenement should have only one entrance with provision for through ventilation.

(*ii*) A one-roomed tenement with a minimum size of 180 sq. ft. should have a small partition wall not more than 6 ft. in height, to divide the kitchen from the front portion of the room. It should have a '*mori*' and '*nahani*' and a loft. The flooring should be of cement concrete, Shahabad stone or any other material impervious to damp. The height from floor to ceiling should not be less than 10 ft.

(*iii*) The length of a *chawl* should not be more than 125 feet. in any single direction exclusive of the area required for latrines, washing places, bath rooms etc. On every floor, for every four rooms, there should be one latrine (and one washing place at least of 16 sq. ft. in size). There should also be on every floor two separate closed bath rooms one for men and the other for women; a direct water-connection and a metal dust bin with a cover for depositing refuse for every 5 rooms.

(*iv*) A building should be provided with a storage water tank. It should have its common conveniences and passages adequately lighted. The entire building should also be white-washed at least once a year.

APPENDIX V.

Housing and Transport

(Views of the National Planning Committee)

1. Every factory, workshop, office or establishment, employing more than 50 workmen in one place at one time, shall provide for such workmen standard housing accommodation, on such terms as regards rent, tenure, etc., as may be laid down by a statutory public authority, like a National Housing Board, set up for the purpose.

Housing provided for workers under this Charter is a facility and amenity, not a duty or obligation upon the worker to utilise.

2. Any factory, workshop, office or establishment, desiring to provide housing accommodation on a standard or approved pattern for its employees, shall be aided and subsidised by the State, or its representative, the local governing body, or some statutory authority specially created for the purpose, financially and technically, by getting or granting building loans, obtaining land on easy terms, supplying standard designs, and procuring all building materials needed at reasonable prices.

3. All such houses shall be so planned, built and located, as to have the prescribed standard of living space, light and ventilation, sanitary fittings and service and other equipment deemed necessary for the workers' comfort and convenience, for saving the housewife's labour and for promoting healthy living and co-operative endeavour.

4. It shall not be compulsory for any workman to reside in the housing accommodation provided by the employer. Nor shall it be open to the employer providing such housing accommodation to demand rent and make other regulations governing tenancy as would prove oppressive, or exploiting to the worker. Such housing being only for the worker and his family, it shall not be open to the worker-tenant to sublet or otherwise abuse the amenity and convenience provided for him.

5. Housing accommodation provided by the employer shall be chargeable to a fair economic rent, making due allowance for the financial and other assistance provided for such enterprise by Government, or any statutory authority set up for the purpose of public expense. Such Housing Service should be made self-sufficient as far as possible without rack-renting the tenant. It shall not be a source of additional profit to the employer building such houses for his workmen.

6. Unless otherwise permitted by the statutory public authority or the department of Government concerned, as the case may

be, such accommodation provided for his workmen by the employer shall be reserved only for the employees of that factory, workshop, office or concern. None but the employees of that particular concern should be entitled to avail themselves of this facility, service or amenity. Under the special circumstances mentioned in the National Housing Code, other workmen in the industry or in connected occupations or any other class of employees may be permitted to occupy such housin,g on special permission and approval by the National Housing Board or the local body as the law may provide.

7. Subject to the appropriate regulations passed for the purpose by some public authority in regard to town planning or building within a given area or providing adequate open spaces, playgrounds etc., workmen's housing shall be as near to their place of work as possible, to avoid needless loss of time in going to and coming from the day's work.

When any employer is unable, or not allowed to build such accommodation for his workmen near their place of work, for reasons entirely outside his control, every assistance required by the worker to find suitable houseroom for himself and his family, shall be forthcoming from the appropriate public authority *e.g.* a National Housing Board.

8. Whenever the accommodation provided by the employer is at a considerable distance from the place of work, the employer shall, in collaboration with the Local Transport Service, make arrangements for the cheap, safe and speedy transport to and from the place of work to their houses for the employees. Such transport may be provided exclusively by the employer, but not so as to make an additional profit for himself; or it may be obtained by the employer in collaboration with the local authority. In each case, this service shall be offered to the workers on as economic terms as may be feasible.

9. The primary objective for providing adequate and appropriate living space and housing accommodation to the workers, as also of the arrangements for their transport from and to their work and home, is to guard against undue congestion in industrial centres. In devising all arrangements in this regard recourse to proper town planning would be indispensable. Suitable plans for this purpose shall be prepared by the appropriate local governing body, who shall also provide all the utilities, amenities and services, necessary to assure a decent living for the workers.

10. Provision for proper medical advice and treatment of the worker and his family shall be included in the utilities, amenities and services mentioned above. It shall be provided as part of the amenities of employment by the employer in co-operation with the National Health Service.

APPENDIX VI

Specifications for different types of houses under the Subsidised Industrial Housing Scheme.

One roomed single-storied tenements.

Living room (including cupboard)	12′ × 10′
Kitchen and lobby	12′ × 6′
Bathing space	4′ × 4′
* Lavatory	4′ × 3′

* A water flushed lavatory will be shared by two tenements. If service privy is provided, there should be one for each tenements.

Estimated cost of construction	Rs. 2,277
Estimated cost of land about 55 sq. yds. at Rs. 8 per sq. yard	Rs. 440
Total cost	Rs. 2,717
or say	Rs. 2,700

Single-roomed tenements in multi-storeyed buildings.

Living room (including cupboard)	12′ × 10′
Kitchen and lobby	10′ × 6′
Bathrooms, lavatories and washing places	4′ × 3′

Three lavatories, two bathrooms, two washing places and one staircase will be shared between eight tenements.

The tenements in the multi-storeyed buildings will have a height of 9′—6″ and a balcony or a verandah. The plinth area will be about 270 sq. ft. and the floor area about 188 sq. ft. An *ad hoc* figure, Rs. 4,500, is taken as the total cost of construction, services and the cost of land of a tenement in a multi-storeyed building in the larger cities.

General specifications.

Main Walls	1′—6″ wide and 2′—0″ deep. 1 : 5 : 10 cement concrete 8″ thick with ½″ gauge stone ballast.
Foundation: Concrete Masonry in foundation and plinth.	Mixed class brick work in cement mortar 1 : 6 with plinth 9″ above ground level.
Superstructure	Mixed class brick work in mud mortar with top and bottom two courses and sides of opening in brickwork in cement mortar 1 : 6 and the opening arched with flat arches.
Roofing	R.C.T.—Beam roofing in brick filling with mud *phuska* and flat tiles etc. with 1′—6″ high parapet walls or any other durable type of room.

Flooring	1″ cement concrete (1 : 2 : 4) flooring over 3″ lime concrete with brick ballast on a bed of 2″ sand.
Wood work:	Battened and braced doors and glazed windows with soft wood including painting.
Finishing	½″ cement plaster over walls with white washing inside and colour washing outside.
Partition walls :	
Foundation	1′—10″ wide and 1′—0″ deep with concrete 6″ thick.
Masonry	4½″ brickwork in cement mortar 1 :4 with ½″ thick plaster cement mortar 1 : 6.
Latrine block	Same as for main building except roofing which is of R.C.C. slabs 3″ thick.
Bathing Place:	
Foundation of side walls	1′—0″ width and 1′—0″ deep over cement concrete 1 : 5 : 10 and 6″ thick.
Masonry in foundations	Mixed class brick work in cement mortar 1 : 6.
Superstructure	Mixed class brick work in mud mortar and ½″ cement plaster 1 : 6.
Height of wall	5 ft.
Flooring	1″ thick cement concrete 1 : 2 : 4 over a bed of 3″ lime concrete with brick ballast.
Compound wall	Mixed class brick work in cement mortar 1 : 4, 4½″ thick with 9″ pillars 7′ apart to be in mud mortar and 5′—9″ high above ground level with a foundation of 1″ wide and 6″ deep concrete, the exposed surface plastered with cement plaster 1 : 6 cement mortar.
Sanitary Installations	Indian type white glazed earthenware water closet with 3 gallons G.I. flushing tanks and 40 gallons capacity R.C. overhead tank with necessary connections etc.
Water supply	One water tap in the bathing place with a 4″ dia. open surface drain and gully trap.
Electric Connections	Two electric points one in the room and the other in the kitchen. The cost includes a sum of Rs. 35 (for one-roomed tenements) for service connection.

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